35 Cents

THE LUMBERMAN

Since 1889

January 1952

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SAN FRANCISCO • NEW ORLEANS
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CHICAGO • LOS ANGELES

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The Production Journal of the Forest Industries

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Truck Loggers Association
January 16-17-18
Vancouver, B. C.

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A Miller Freeman Publication.

. . . BY WRAPPING THE YARDER DRUM WITH *PREFORMED* YELLOW STRAND

The first day of skidding or loading logs with *Preformed* Yellow Strand demonstrates its smooth spooling. As shock loads and severe bends put the line to the test, its resistance to wear earns real respect. But the clincher comes when the board-foot record proves the low final cost. To get this long-lived service on hoists and winches, order 6 x 19 *Preformed* Yellow Strand with independent wire rope core. And for similar savings at the mill, wrap the carriage, too, with appropriate *Preformed* Yellow Strand.

Broderick & Bascom Rope Co., St. Louis 15, Mo.

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Branches: **SEATTLE, Portland, San Francisco, Los Angeles, Houston, Chicago, New York**

Distributors in All Logging Areas

BRODERICK & BASCOM
Yellow Strand
PREFORMED WIRE ROPE

STEEP country like this is one reason why light-weight McCullochs make records.

Paul Towsley

CHAMP LOGGERS

UNDERBUCKING a bad lie. This takes skill, but McCulloch light weight really helps.

CLOSE-UP of 3-25 notching shows fast, easy cutting in heavy timber.

NOTCHING a medium-size tree—one man with the high-speed 7-55 and 50-inch blade.

FALLING a big 4-footer one man. Design of the 7-55 permits easy 1 or 2-man use.

ONE-MAN falling, Steensen with the 7-55, Towsley with the 3-25.

Peter Steensen

USE McCULLOCHS

Record-holding loggers Peter Steensen and Paul Towsley,

top hands for the C. D. Johnson Lumber Corp., use only McCulloch chain saws.

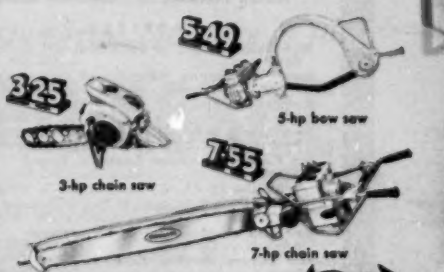
In 1950, Paul and Peter felled and bucked 18 million feet in 8 months.

McCULLOCH McC MOTORS

McCULLOCH chain saws for record-breaking production

UPSIDE-DOWN full power of McCulloch saw comes in handy in underbucking.

LIMBING goes fast with the maneuverable, 25-pound McCulloch 3-25.



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McCULLOCH

S-1001

World's Largest Builders of Power Chain Saws

McCULLOCH MOTORS CORPORATION, LOS ANGELES 45, CALIF.

THE LUMBERMAN
Since 1889

A Miller Freeman Publication

The Production Journal of the Forest Products Industries Since 1889

ABC

JANUARY 1952

Vol. 79 No. 1

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A NEW ROUTER-PATCHING SYSTEM TO UPGRADE YOUR PRODUCTION

American-Davis Router-Patcher System Can Upgrade Your Plywood, Sash and Door Stock, Flooring and Even Lumber!

BAR MOUNTED, on Flat Base, which has Traction Points, the AMERICAN DAVIS Router speeds up production.

Router moves easily on ball-bearing guide wheel. Movement of Cutter is determined by set screw stop adjustment.

UPGRADING Your Plywood and Millwork Output means more satisfied Customers and MORE PROFITS on Today's controlled markets and tight raw material supply situation.

AMERICAN-DAVIS System of Router-Patch Cutting uses two simple, fast, accurate machines to remove defects from the surface of plywood and lumber, and refit with an almost invisible patch that is tighter and more durable than the original wood itself. Router is a simple power tool mounted on a special steel frame and the Patch Cutter is fully automatic, turning out precision-fitting tapered Patches from veneer shims at the rate of 50 per minute. Patch is bevelled and slightly thicker than routed defect, sands and finishes perfectly. Available in 16 standard patch sizes.

AMERICAN Automatic Press Loaders
AMERICAN Hydraulic Elevators
AMERICAN Automatic Press Unloaders
AMERICAN Panel Saws

American MANUFACTURING COMPANY INC.
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Vancouver, B. C.

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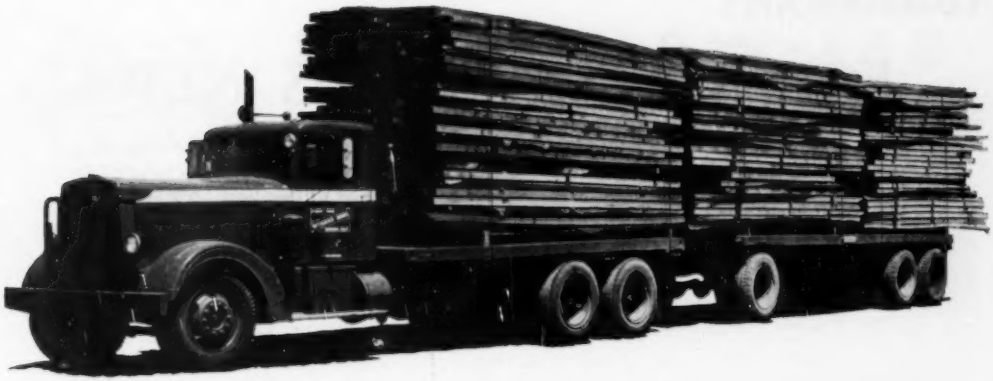
Henry H. Keenan, Manager
Greensboro, No. Carolina



"2700 miles a week is tough on any trailer. But Trailmobile can take it."

says Mr. Grant Winans, President Winans Brothers Trucking Co., Redding, Calif.

"On one run, each trailer covers 2700 miles a week hauling lumber from Redding to Oakland. Others go all the way to the Mexican Border. Hauls like these mean we come across every kind of weather and road condition—and the trailers we use have to be built to take these conditions without coddling or coaxing. The reason we bought Trailmobiles is because they're really rugged and we find them more economical to operate and less expensive to maintain."

Winans Brothers Trucking Co.
Redding, California

Largest lumber haulers in Northern California. Operates a fleet of nineteen trailers on a statewide contract, six days a week.

Among trailer operators everywhere...the trend is to

TRAILMOBILE

For full information, telephone or write

TRAILMOBILE, INC.

Berkeley, California Landscape 5-0570

The
LUMBERMAN'S

FOREST INDUSTRIES NEWS

Officers of the Intermountain Logging Conference have decided not to hold a machinery and equipment show in connection with the 1952 Conference scheduled to be held at Spokane March 24-25-26. The program will be in two parts, one for Management and one for Mechanics. Major topics at the management session will be Truck Transportation and Forest Management. Topics at the mechanics sessions will be Machine Operator Training and Maintenance of Logging Equipment.

Curtis Companies, Clinton, Iowa, has purchased the American Plywood Corp., New London, Wis., and its subsidiary the American Veneer Corp., Oconto, Wis.

Robert W. Lyons, formerly Assistant Vice President Kimberly-Clark Corp., Neenah, Wis., in charge of woodland operations has been elevated to Vice President and C. G. Cosens, Toronto in charge of related woods operations in Canada for the company, will assume the position of general manager of all woodland operations.

C. H. Wheeler, vice-president Santiam Lumber Co., Sweet Home, Ore., has been elected a director of the National Association of Manufacturers.

W. A. Woodard, president of the W. A. Woodard Lumber Co., Cottage Grove, Ore., was elected first citizen of Cottage Grove for 1951 by Cottage Grove's Chamber of Commerce.

Harley LaPlant, who was once manager of a sawmill at Lyman, Wash., and later manager of Anacortes Veneer, Inc., Anacortes, Wash., and a past president of the West Coast Lumbermen's Association, died late in November in a Long Beach, Calif. hospital. A year ago he was seriously injured when struck by an automobile.

Negotiations are in progress for the purchase of the Ralph L. Smith Lumber Company's mill and holdings at Redding, Calif., by the Diamond Match Company, which has extensive manufacturing and logging activities in Washington, Idaho and California.

Northwest Wood Products Clinic will be held at Spokane, Wash., April 1-2. The four major panel discussions will be on 1—Package Handling of small logs, poles, pulp bolts and cordwood; 2—Debarking equipment and methods; 3—Hardboard manufacture; 4—Reprocessing stock in saw and planing mills. A. W. Crawford, Ohio Match Co., Heutter, Ida., is program chairman. H. Z. White, St. Maries Lumber Co., St. Maries, Ida., is president.

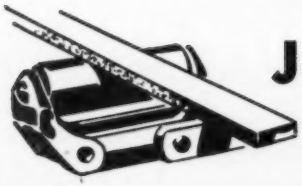
The annual meeting of the Appalachian Hardwood Manufacturers, Inc., will be held Thursday and Friday, January 17 and 18, at the Netherland Plaza Hotel, Cincinnati.

The death of Walter J. Ryan of Tacoma, has removed one of the best known logging engineers in America. Mr. Ryan was, until his retirement two or three years ago, for many years logging engineer of the Weyerhaeuser Timber Co. Following his retirement he continued working as a consultant. Last year spent some time in New Zealand on a logging enterprise. Mr. Ryan was a past president of the Pacific Logging Congress and served for years as a director of that organization. He seldom missed a session of the Pacific Logging Congress.

Idanha Veneer Co., Idanha, Ore., currently doubling its capacity through construction of a second veneer plant at Lyons, has merged into M&M Wood Working Co., Portland, converting the Idanha stock at ratio of 5.5 to 1. Most principal stockholders of M&M in Idanha organization are also principal stockholders.

Prentice Bloedel, vice-chairman of MacMillan & Bloedel, Ltd., Vancouver, B. C., has been named a director of the Bank of Montreal, one of Canada's largest banks.

for sorting and feeder tables



JEFFREY RW-188 ROLLER TOP CHAINS

Of the combination type, this recently-designed Roller Top chain is stronger and longer wearing than the all-malleable types now being used. Lumber handlers can take off any piece quickly and easily in transverse removal of heavy boards.

May be used on all strands or simply on the outside strand only. Operates over No. 78 "H" type mill chain sprockets. Weight per ft. is 7.93 lbs. Usually furnished riveted unless otherwise specified. We'll be glad to go into more detail.

THE JEFFREY MANUFACTURING COMPANY Established 1877

850 North Fourth St., Columbus 16, Ohio

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Complete Line of Material Handling, Processing and Mining Equipment

Authorized Distributors on West Coast: LOS ANGELES—Edward D. Maltby Co., Inc. SAN FRANCISCO—Bearing Engineering Co. PORTLAND and SEATTLE—Northwest Chains & Sprockets, Inc.

Direct Jeffrey Offices in most large cities.

Forest Industries News

Everett L. Ellis, Assistant Professor of Forestry at the University of Idaho, has been awarded an Anderson fellowship for the scholastic year 1951-52 at the College of Forestry of the University of Washington.

Paul Pigott, Seattle, president of the Seaboard Lumber Co. and the Pacific Car and Foundry Corp., has been elected president of the Associated Boys Clubs, Inc., of Seattle.

United States Plywood of Canada Limited has changed its name to Weldwood Plywood Limited. United States Plywood Corporation has entered the hardboard field as exclusive distributors for a new hardboard manufactured by Abitibi Power & Paper Co.

The purchase of an interest in the Coast Range Timber Products of Salem, Ore., has just been announced by George E. Miller, president of the George E. Miller Lumber Co., Portland, Ore. Warren Hoffman of Salem is joint owner of the mill and will serve as plant manager. The George E. Miller Lumber Co. also owns mills in other parts of Oregon, the Cascadia Lumber Co. at Sweet Home, the Yaquina Bay Mills at Newport and the Oswego Planing Mill. A new mill is now under construction at Toledo, Ore.

Sam Reid, Woodville, Texas, was elected president of the Texas Forestry Association at the annual meeting in Lufkin on December 1. He succeeds Paul Hursey, of Jasper. C. C. Pool, Jasper, succeeded C. N. Heaton Tyler, as vice-president. Attendance exceeded 100 persons.

Beginning with the next July 1 fiscal year a total of $591,287 will be spent on woods trails and roads in the national forests in Alabama, Georgia, Florida, Mississippi, Tennessee, and the Carolinas. The work will bring the national forest lands up to the standard of industrially owned acres in which road maintenance is an annual charge.

J. J. O'Neill, of O'Neill Manufacturing Co., Rome, Ga., was elected president of the Southern Woodwork Association at the annual meeting in Ponte Verda, Fla.

M. J. Foley and James H. Nolan have been named respectively president and vice-president of the Foley Lumber Co., Jacksonville, Fla. The latter will serve as general manager. The new president succeeds Lester W. Foley, a brother, who has become associated with Buckeye Cellulose Corp. (Proctor & Gamble) in management of woodlands acquired from Brooks-Scanlon, Inc., near Perry, Fla. M. J. Foley, formerly vice-president of Brooks-Scanlon, Inc. operations near Perry, is now executive vice-president of Powell River Co., Ltd., newsprint mill at Powell River, B. C.

George L. Drake, vice-president, Simpson Logging Co., Shelton, Wash., has been elected president of the Society of American Foresters for the two-year term 1952-53. He succeeds Charles F. Evans of Atlanta, Ga. Elwood L. Demmon, director of the Southeastern Forest Experiment Station, Asheville, N. C. was elected vice president of the Society. The following foresters were elected to the Council in the recent balloting.

William J. Brown, Neenah, Wis.; Dwight B. Demeritt, Bangor, Maine; Frank H. Kaufert, St. Paul, Minn.; C. Otto Lindh, Albuquerque, New Mexico; Gordon D. Marckworth, Seattle, Wash.; Richard E. McArdle, Washington, D. C.; Earl Porter, Mobile, Ala.; Perry A. Thompson, San Rafael, Calif.; Ruthford H. Westveld, Columbia, Mo.

Twin Feather Mills, Inc., Kamiah, Idaho, has been granted a certificate of necessity to spend $39,834 improving its dry kiln facilities with 40 percent allowed for quick tax amortization.

Exports of plywood from Japan for the first six months of 1951 were valued at two and a half million dollars. These amounts are well above the totals for the entire year of 1950 when exports of plywood were valued at $1.8 million. The large gain was accounted for by increased shipments to the United States, Great Britain, Australia, and Belgium.

H. G. Munro, formerly vice-president and general manager of B. C. Forest Products, has been promoted to the office of managing director. T. E. Burgess, who has been assistant general manager, is now general manager. The company operates sawmills at Victoria, Vancouver, Hammond and Youbou as well as several logging operations on Vancouver Island and the British Columbia mainland.

Weyerhaeuser Timber Co. plans to build a hardboard plant at Klamath Falls, Ore. It is stated construction will start as soon as National Production Authority gives approval. It said the plant may get into production in the spring of 1953 and that it will have a capacity of 90,000,000 sq. feet of board per year.

STANDARD ENGINEER'S REPORT

DATA

PRODUCT: Chevron Starting Fluid

UNITS: Diesel engines

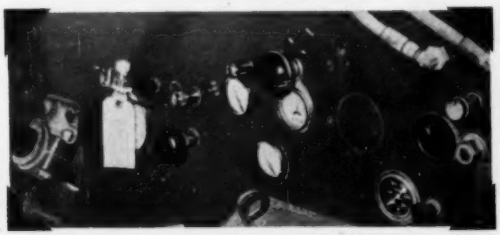
CONDITIONS: ~~Sub-zero temps~~ — high altitudes

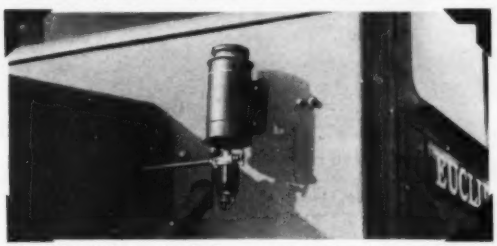
EQUIPMENT: Permanent primers with atomizers on manifolds

FIRM: The Utah Construction Co. Cedar City, Utah

Four hours saved daily starting 13 diesels!

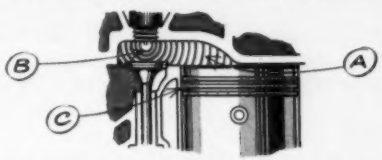
TRUCKS LIKE THIS, when primed with Chevron Starting Fluid last winter, averaged only a minute and a half starting time in temperatures down to 26° below zero. Previously, it took 20 minutes to start each of the 13 units operated by the Utah Construction Co. at mile-high Cedar City, Utah. This meant a saving of four hours a day in starting time alone. A dash-mounted pump (arrow) in each unit forces Chevron Starting Fluid through atomizers into the manifold and primes the engine for fast starting.





STORAGE TANK for bulk Chevron Starting Fluid is here mounted near the engine. The fluid also comes in 7- and 17-CC gelatin capsules. These capsules are placed in a puncturing tool and fluid is pumped into intake manifold the same way as from the central bulk tank shown. Each type of dispensing equipment is suitable for both diesel and gasoline engines and is available from your starting fluid supplier. Chevron Starting Fluid is approved by leading engine manufacturers.

How CHEVRON Starting Fluid Starts Gasoline and Diesel Engines Instantly



A. Atomizes in lowest temperatures and provides powerful, easily ignited vapor in combustion chamber.

B. Pressure, or the weakest spark, fires mixture—turns engine and heats air for regular fuel mixture.

C. Contains lubricant and additives—inhibits cylinder wear and ice formation in primer equipment.

HOT NEWS — COLD ENGINES

FREE BOOKLET gives you more facts on Chevron Starting Fluid—shows where it should be applied in different type engines. Write or ask for it today.

CHEVRON STARTING FLUID

TRADEMARK REG. U.S. PAT. OFF.

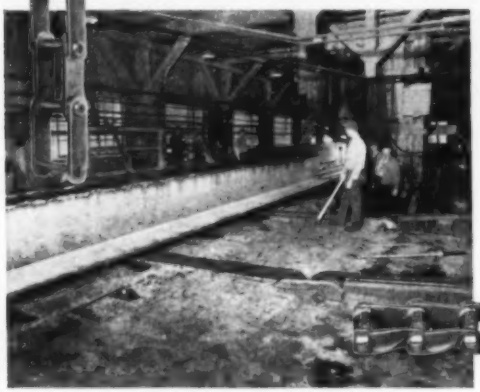
STANDARD TECHNICAL SERVICE checked this product performance. For expert help on lubrication or fuel problems, call your Standard Fuel and Lubricant Engineer or Representative; or write Standard Oil Company of California, 225 Bush St., San Francisco.

STANDARD OIL COMPANY OF CALIFORNIA

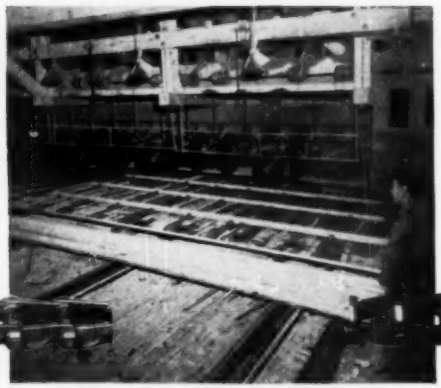
THE BIGGER THEY COME—the harder to haul, but they're all the same to Rex Straight Side Bar Chabelco Chain. This sturdy chain stands up under the terrific pounding of a whole sling load of logs being dropped on it and comes right back for more.

there's profit for you in this

CHAIN



THE SECOND "EVENT" is the trip to the saw carriage. Rex H-Type Conveyor Chain is often the best chain for the job on this leg of the trip.



YOU CAN DO THE TRIMMING on your chain costs by standardizing on the complete Rex line. Here Rex Chabelco is used to feed this trimmer because of its ability to maintain accurate pitch through long years of service, thus helping assure a straight trim.

REX

BALDWIN-REX

Chain Belt COMPANY
OF MILWAUKEE

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Dallas • Denver • Detroit • El Paso • Houston • Indianapolis • Jacksonville
Kansas City • Los Angeles • Louisville • Midland, Texas • Milwaukee • Minneapolis
New York • Philadelphia • Pittsburgh • Portland, Oregon • Springfield,
Mass. • St. Louis • Salt Lake City • San Francisco • Seattle • Tulsa • Worcester

From log deck to finished lumber, the *complete* Rex® line of sawmill chains can help you reduce your handling costs . . build bigger profits.

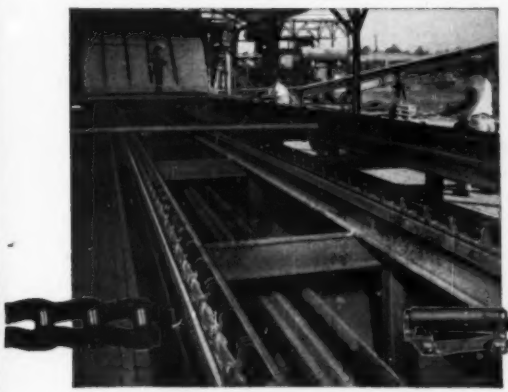
When you select your chains from the complete Rex line, you can be sure of getting the *one best* chain for the job at hand . . . the one which will deliver the most years of service at lowest overall cost. For example:

For the saw carriage, edger spotters, trimmer saws, slashers and all-around moving service, you can choose from Rex H-Type Cast Chain, Rex Steel Chabelco® or Rex Durobar® Combination, depending on the severity of service expected. You don't spend money for unnecessary extra strength nor are you penalized by premature chain failures.

For log haul and refuse conveying, transfer service and drive service, there is a similar wide choice, permitting you to select the exact chain that best fits *your* needs.

Study the illustrations on this page. They show some of the most popular chains in the complete Rex line at work in some of the country's leading mills. Your Rex Field Sales Engineer is well qualified to help you work out a "chain of events" which will save you money. Call on him today. Chain Belt Company, 4633 W. Greenfield Ave., Milwaukee 1, Wis.

OF EVENTS!



THE DAY'S WORK is made easier—less fatiguing when your green lumber sorting tables are equipped with Rex Roller Top Chain. Free running rollers permit the sliding on and off of boards with minimum effort, let men get more done per day.

THE RIGHT SORT of chain helps assure easier, more efficient work at the sorting tables. Rex Roof Top Transfer Chain carries finished lumber smoothly and economically.

THIS CHAIN WON'T REFUSE . . . when it comes to handling mill refuse. Rex H-Type Conveyor is a sturdy carrier of sawdust, shavings and other materials that require steady, dependable transportation.

PUT A LOT OF DRIVE behind your conveyors with Baldwin-Rex® Roller Chain. This precision-built, all-steel chain is available in a complete range of sizes and strengths from ¼" to 2½" pitch.

Forest Industries News

The J. Neils Lumber Co., Libby, Mont., is adding what amounts to another side to its sawmill. Major new equipment to be added includes a vertical and a horizontal resaw. When these resaws are in, the head rig will not be called upon to do as much manufacturing as it has done in the past. Company officers expect the additional equipment will increase the cut of the mill substantially.

The RFC has announced that it has granted a 3½ year 5 percent $600,000 loan to the Everett Plywood and Door Corp., Everett, Wash. According to the announcement the money is to be used as additional working capital including the financing of log inventories. The loan is securied by a lien on the plant, land, etc., as well as an assignment of $50,000 life insurance. The Everett Plywood and Door Corp. is a cooperative. Some months ago it succeeded the Robinson Mfg. Co.

The Frost Lumber Industries Inc., Shreveport, La., one of the South's best known lumber companies and the Olin Industries, East Alton, Ill., have agreed on a consolidation program. Frost Lumber Industries, with timberlands, sawmills, railroads, and oil and gas properties in Louisiana, Arkansas and Texas, will continue operations under its present management as a division of Olin. The acquisition will provide Olin with 450,000 acres of heavily forested land which, it is said, is more than sufficient to support, on a perpetual yield basis, the nitrating and dissolving wood pulp mill which Olin plans to construct. Frost Lumber Industries operates sawmills at Mansfield, La., Waskom and Nacogdoches, Texas, and its Union Sawmill Co. has a mill at Huttiz, Ark.

United States Plywood Corporation has closed a contract for the sale of between eight and fifteen million square feet of a new type fir plywood sheating to be used as roofing material for the initial 5,000 homes in the 16,000-home village of Levittown, Pa. For the new plywood roof sheating, a new animal blood and resin adhesive will be used. Also being negotiated is the sale of approximately one-half million square feet of Redwood Novoply panels to be used as movable wall partitions in the new Levittown, Pa., homes.

Hillman Lueddemann, president of West Coast Lumberman's Association and vice president and general manager of Pope and Talbot, Inc., has been elected chairman of the Board of Directors of the Portland Chamber of Commerce. Other lumber men on the 57-man Board are: Stan Anderson, president, Fall Creek Lumber Company, and Anthony J. Dwyer, Jr., president of the Dwyer Lumber Co. Dwyer in addition, is chairman of the Chamber's Forest Products Committee.

The Florida Forest Service plans to double its nursery seedling capacity in 1952. The two state nurseries have a current capacity of 28 million seedlings with an average of 20 million produced for distribution annually. This year the demand amounted to 43 million seedlings.

G. H. Kesterson, owner of the Swede Basin Lumber Co., Grants Pass, Oregon, passed away December 9th, at the age of 87.

International Paper Co. has acquired the 70,000 Henry Ford estate at Richmond Hill, Ga. The property includes a demonstration model sawmill and 50,000 acres of well managed forest. Title was taken by Southern Kraft Timberland Corp., a subsidiary.

Arthur Temple, Sr., a prominent figure in the southern lumber industry, succumbed to a heart attack at Texarkana, Texas, on November 28 after a short illness. He became president of the company upon the death of his father in 1935. In addition to the Southern Pine Lumber Company, the deceased was the head of the Temple Lumber Co., Pineland, Texas; the Temple Mfg. Co. (boxes) Dallas, Texas; and the Temple Cotton Oil Co., Little Rock, Ark. He was an active member and a stockholder in Southern Pine Association, serving as a director for 16 years, and serving as a member of committees on Study and Planning, Nominations and Resolutions, Trade Promotion, and Conservation. He was 57 years of age. Survivors include his widow,a son, Arthur Temple, Jr., vice-president and general manager of the Diboll mill; a daughter, Mrs. Carroll Allen.

Lumber and hardwood flooring men, meeting at the Biltmore Hotel, Los Angeles, recently, were told that the Northern Hardwood Flooring industry will launch an ambitious advertising and trade promotion campaign in 1952. W. C. Abendroth, Reed City, Michigan, president of the Maple Flooring Manufacturers Association said, that the association field promotion men will devote more time to personal calls on architects and engineers next year.

The 1952 Willamette Valley Logging Conference will be held May 1-2-3 at Eugene, Ore. It will feature a machinery show with emphasis on "machinery in operation", carrying on various logging-industry phases at the fair grounds for operating display.

FOR *greater production*

USE

HOE

WIDE

BAND SAWS

They take the heaviest feeds with ease,
assure maximum production
in the fastest cutting mills,
require minimum servicing.

They are made from a special steel,
the toughest ever produced,
unequaled for edge and tension holding.

They are so expertly ground
and finely finished
that their thickness is uniform
throughout their full length.

They are furnished in a full range
of widths, gauges and tooth spacing
for Head Rigs, ReSaws and Rip Saws.

CHISEL-TOOTH SAWS • BITS AND SHANKS • SOLID SAWS • BAND SAWS • KNIVES • FILES

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910 East 138th Street New York 54, N.Y.

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Seattle 4, Wash. — 1954 First Avenue South

J. Neils Lumber Co. says . . .

"LORAIN No. 3 Purchased on the performance of Nos. 1 and 2"

GEORGE A. HERION, Logging Manager on the J. Neils Lumber Co. show at Klickitat, Washington, made that statement. Shown is their latest Lorain, a 25-ton MC-504W Log Loader on an operation near Glenwood, Washington.

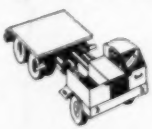
Repeat orders for log loaders for rugged shows just don't happen . . . unless there's a good reason. When J. Neils Lumber Co. made it Lorain Log Loader No. 3, they had 2 good reasons to go by — the performance of Lorains Nos. 1 and 2. Logging Manager George Herion reports their newest MC-504W averages a daily output of 180,000 bd. ft. per 8 hour day; has produced a maximum of 254,000 bd. ft. in a single day. Lorain Moto-Crane rugged *mobility* has paid dividends on scores of logging shows. High speed 30 m.p.h. travel speeds enable it to scamper far and fast to serve selective logging needs. Multiple landings may be established to keep loading operations closer to felling. Shorter skid distances mean more logs delivered to the landing.

For additional reasons why Lorain Moto-Cranes will pay dividends on your show, ask your local Thew-Lorain Distributor for performance proof!

THE THEW SHOVEL CO., LORAIN, OHIO

LORAINS TO FIT YOUR SHOW

Mobile 2-engine Lorain Moto-Cranes *are available in lifting capacities of 10, 15, 20, 25 and 45 tons. Moto-Crane carriers are designed for each lifting capacity, with power, big-tire "flotation" and tractive effort for off-the-road travel.*



Crawler Mountings *are available for all Lorain Log-Loaders where terrain or limited travel requires this feature. Lorain crawler mountings are extremely maneuverable for use in the roughest terrain.*

THEW LORAIN CRAWLER OR RUBBER-TIRE LOG LOADERS

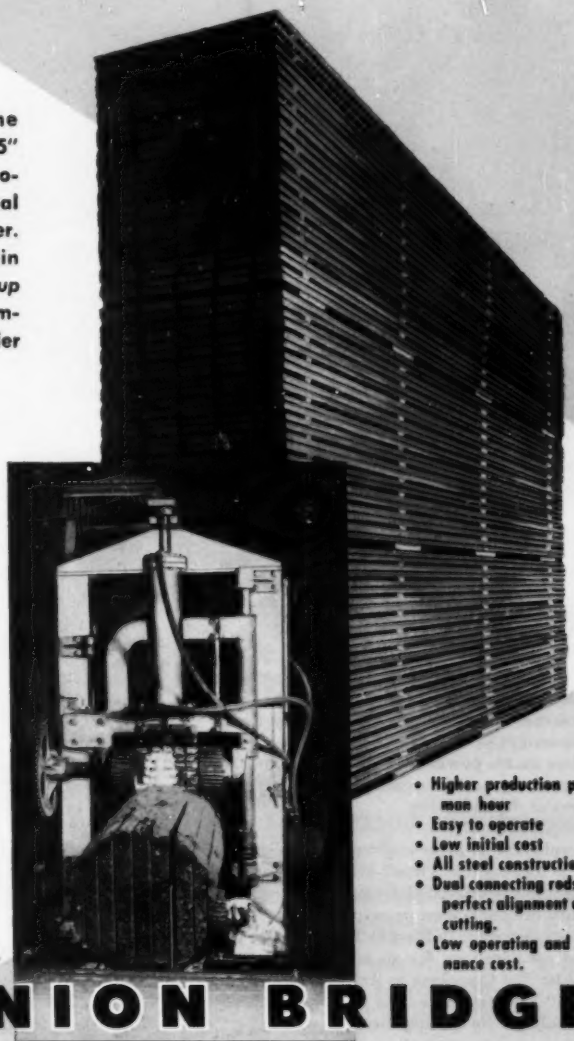
FOR YOUR LOG LOADING NEEDS SEE YOUR THEW-LORAIN DISTRIBUTOR

up to 30% more sawn lumber

...than other sawing methods

Thoroughly proven, the **DOMINION BRIDGE 25" PREMIER GANGSAW** provides the most economical method of sawing lumber. Accurate cutting and thin saws result in a yield of *up to 30 per cent* more cut lumber . . . and with a smaller crew.

It handles logs from 6" to 25" diameter *without waste*. Ideal for small or salvage timber.



NEW!

New Design provides oscillating movement for saw frame . . . reduces wear on saws and cuts down maintenance costs.

ALSO:

now supplied with optional mechanical or electrical reversible infeed drive.

WRITE FOR ILLUSTRATED CATALOGUE

- Higher production per man hour
- Easy to operate
- Low initial cost
- All steel construction
- Dual connecting rods assure perfect alignment and true cutting.
- Low operating and maintenance cost.

Manufactured by:

DOMINION BRIDGE

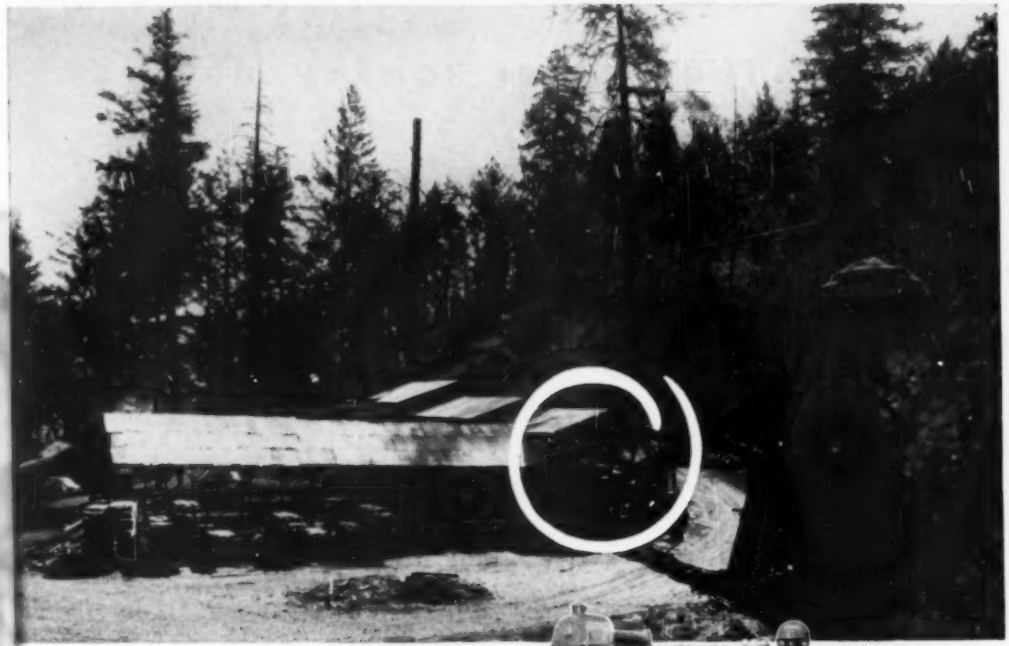
COMPANY LIMITED

P.O. Box 160 Vancouver
Phone: GLenburn 1000

Represented in Eastern Canada By: ATLAS POLAR CO. LTD.
54 Wolseley Street, Toronto, Ont.

A MURPHY DIESEL

in this picture . . .



makes profits go UP!

ANY sawmill picture is improved when you put a Murphy Diesel in it . . . because the Murphy Diesel gives you the four advantages so important to profitable operation —

1. More usable power
2. Greater operating economy
3. Greater dependability
4. Longer life

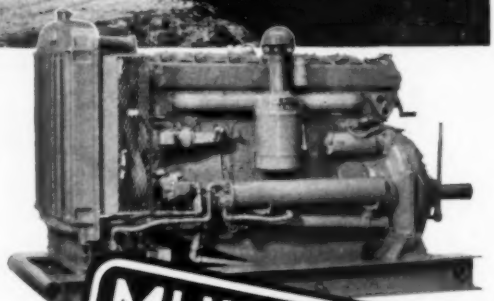
The Murphy Diesel gives you these advantages because it is a heavy duty "true" diesel engine incorporating the most advanced design and utilizing the most efficient combustion principles.

The complete story of Murphy Diesel design plus abridged specifications for all models is given in the booklet "10 Questions to Ask a Diesel Engine Salesman." You can get a copy from your Murphy Diesel Dealer or by writing direct.

MURPHY DIESEL COMPANY

5351 W. Burnham St. Milwaukee 14, Wis.

Sales, parts and service in principal centers



Heavy duty power

for the lumber industry

Murphy Diesel Engines and Power Units for the lumber industry are available in sizes from 90 to 226 H.P., 1200 and 1400 rpm, Generator Sets 60 to 140 K.W.

"JOB ENGINEERED"

FOR ANY KIND OF LUMBER HANDLING

We call it "job engineering"—designing and building an EDERER crane to your exact job requirements. If you're moving peeler blocks in a plywood plant—or handling the finished product in a lumber mill—EDERER engineers have the knowledge, and the plant has the facilities to produce a crane to handle your job precisely. This gives you full efficiency in operation, conservation of power, ease of handling and increased speed all along the line—economical, too.

This "job engineering" is why leading firms in the lumber products field specify EDERER cranes. An EDERER engineer will be glad to talk with you about the job requirements of *your* plant.

ABOVE: *EDERER crane handles peeler logs between log well and barker, barker and lathe.*

BELOW: *EDERER grapple crane lifts, moves and stacks finished lumber. Aisle space is practically eliminated.*

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EXPORT DIVISION
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OVERHEAD CRANES • GRAPPLES • MONORAILS • LATHE CHARGERS • PLUG CUTTERS • VENEER PATCHERS • BARKERS

"We can do 1/4 to 1/3 more work with our 'Cat' U 'Dozer!"

J. E. McSweeney, Partner and Manager, McSweeney & Menary, Klamath, Calif.

That's a lot *more* work, but you can bet your bottom dollar Mr. McSweeney knows what he's talking about. He and John Menary have built miles of logging roads in their seventeen years of partnership. "We're strictly 'Caterpillar' owners," Mr. McSweeney says. "We think there's nothing better."

Take a good look at this outfit's "Cat" D8 Tractor with No. 8U 'Dozer, busy building a logging road for the Simpson Logging Company near Klamath. Besides its regular maintenance work, this rig averages 15 miles of new roads a year. Notice how the curved U-blade, designed to give a minimum of end spillage, is a natural for long-haul 'dozing. It practically slot-'dozes for itself on this 14% grade.

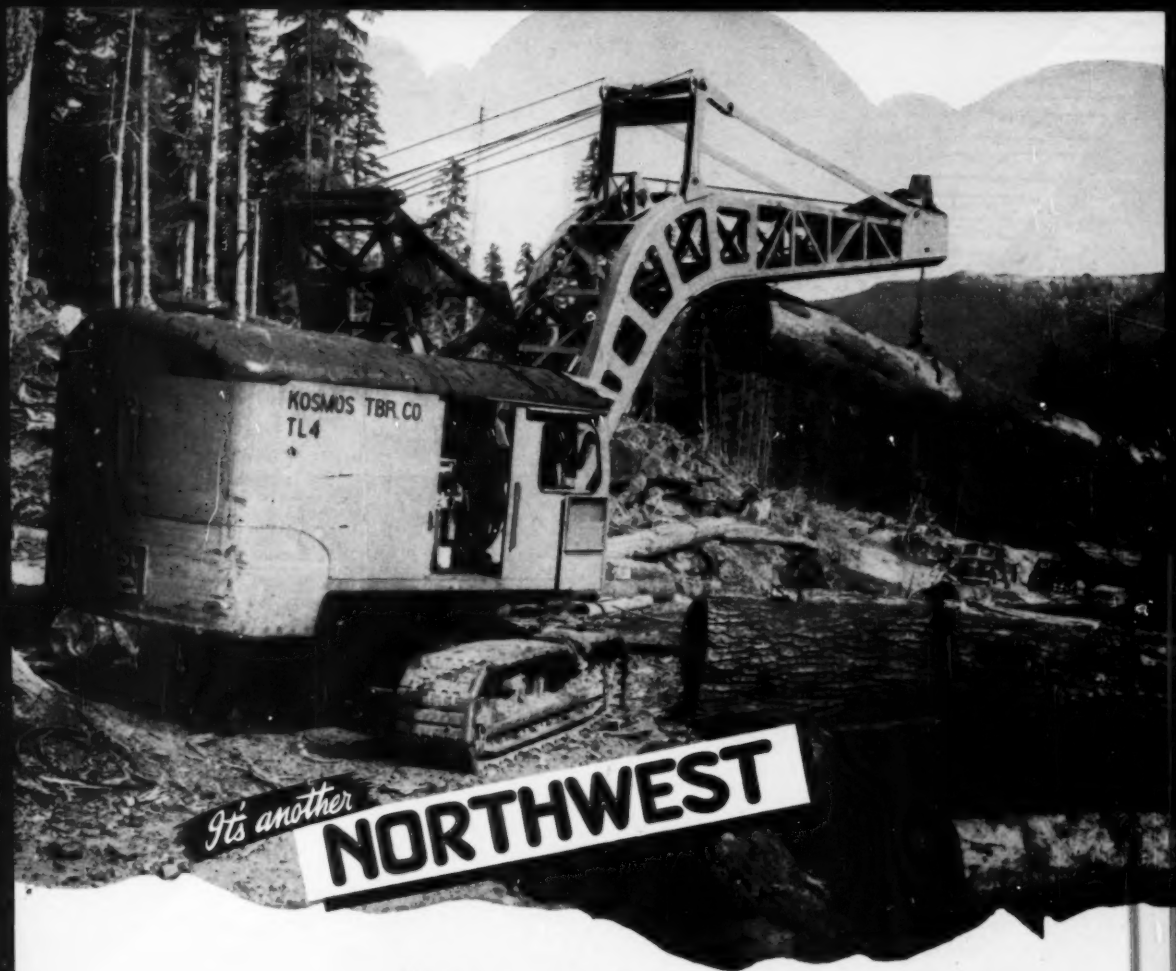
You can count on "Caterpillar" U 'Dozers—and all other "Caterpillar" equipment to do an honest job for you. Of course, with good care, you'll get longer wear—and that's your job these days. The defense effort demands that you work equipment longer. So keep in close touch with your "Caterpillar" Dealer—he's on the job to serve you!

CATERPILLAR, SAN LEANDRO, CALIF.; PEORIA, ILL.

CATERPILLAR

REG. U. S. PAT. OFF.

DIESEL ENGINES
TRACTORS • MOTOR GRADERS
EARTHMOVING EQUIPMENT



AND it's working for the Kosmos Timber Co. of Kosmos, Washington. These people know equipment — they've tried Northwests and found the dependability they need in the bush. They are among the many Northwest users that have placed repeat orders for Northwest Log Loaders on the basis of service.

When you buy a Northwest you will be amazed at the ease of upkeep, the freedom from down time and the smoothness of steering and travel. That Northwest feature of positive traction while turning as well as when going straight ahead will keep you out of lots of trouble.

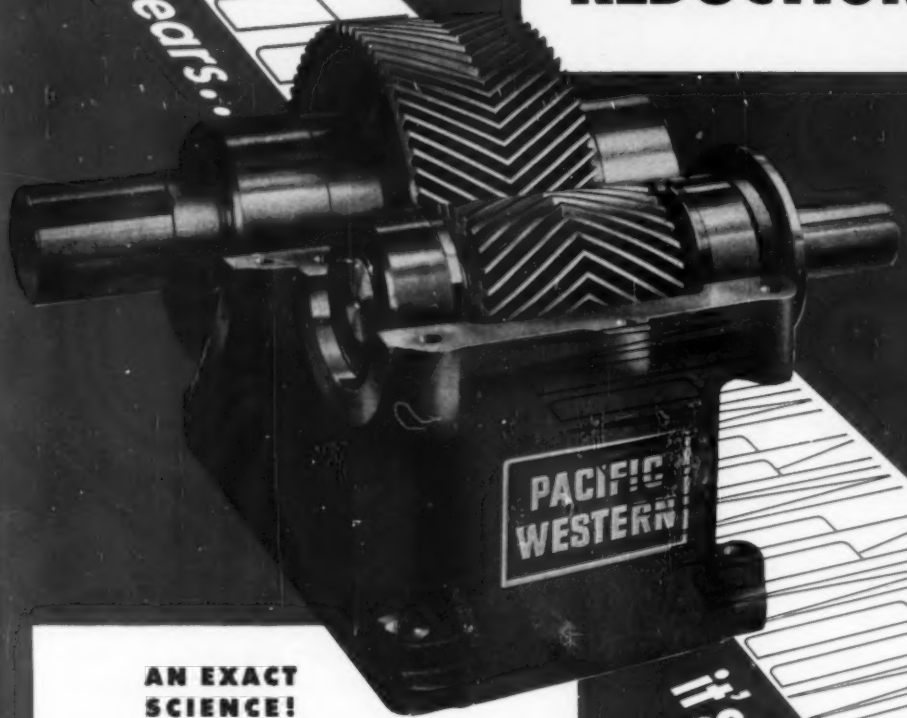
Northwest steering puts a big Northwest where smaller machines on rubber have difficulty. It is a real all-weather rig. Why not plan ahead for a Northwest Log Loader on your future shows. Ask a Northwest man or a Northwest Sales Agent.

NORTHWEST ENGINEERING COMPANY
1510 Field Bldg., 135 South LaSalle Street, Chicago 3, Illinois

SHOVELS • CRANES • DRAGLINES • LOG LOADERS

The Science of SPEED REDUCTION

For western gears...



it's WESTERN GEAR

AN EXACT SCIENCE!

With more than fifty years of practical experience behind us, the design and production of geared speed-reducing equipment has long been an exact science at Western Gear Works and Pacific Gear & Tool Works.

The ability to specify and design *the correct* reducer for any application—and the facilities to produce *any required* reducer—are major services we provide to American Industry.

B195

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Manufacturers of PACIFIC-WESTERN Gear Products

Pacific Gear & Tool Works

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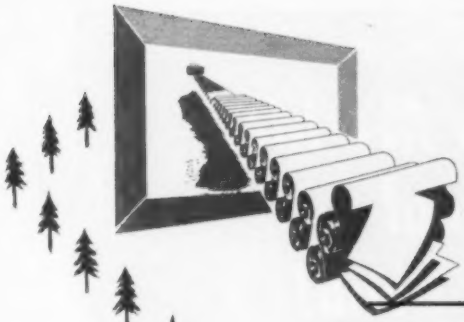
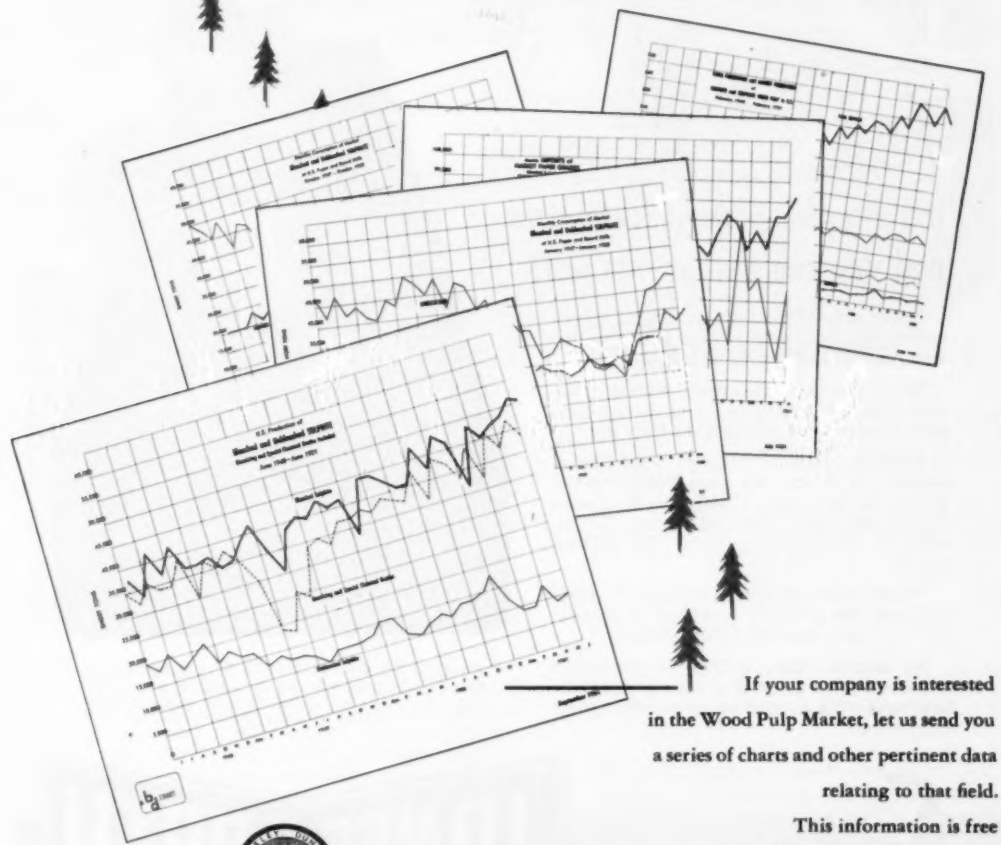
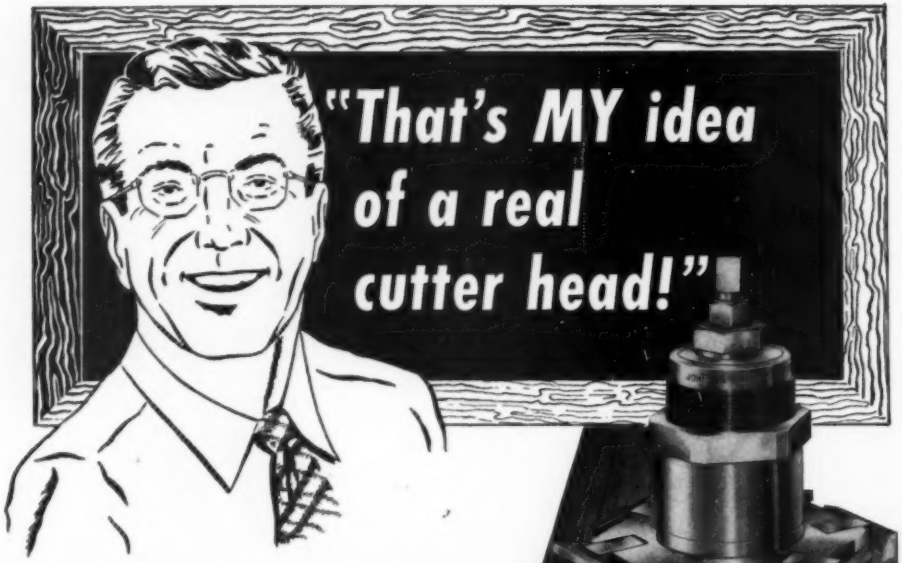


Look into the WOOD PULP PICTURE



If your company is interested in the Wood Pulp Market, let us send you a series of charts and other pertinent data relating to that field. This information is free and you assume no obligation.

BULKLEY, DUNTON PULP CO., INC.
295 Madison Avenue, New York 17, N. Y.



"It's simple, always cuts true and you can't wear one out!"

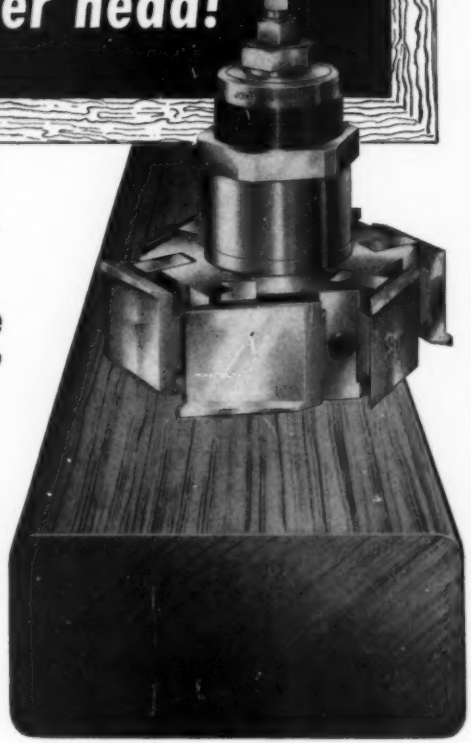
Users say: "The more you know about cutter heads, the more you appreciate the way a Jones & Orth head is made!"

When you take one apart—check its design and construction — you get a better idea of why they perform as they do.

Take our popular H-Type head for instance, such as the eased-edge model shown at the right. Knives on this head can be used right down to the last ¾ inch without change of pattern OR cutting angle!

You'll find a minimum number of parts too, and the greatest precision in adjustments plus a maximum of safety.

No wonder Jones & Orth cutter heads are the choice of so many shop superintendents with a lifetime of woodworking experience!



Find out NOW what Jones & Orth cutter heads will do for your shop! Write today for new catalog, and name of dealer nearest you. Address either our Seattle or Memphis branch!

Need specially designed cutter heads? Let our engineers help! Write us in detail. Prompt service!

JONES & ORTH

CUTTER HEAD COMPANY

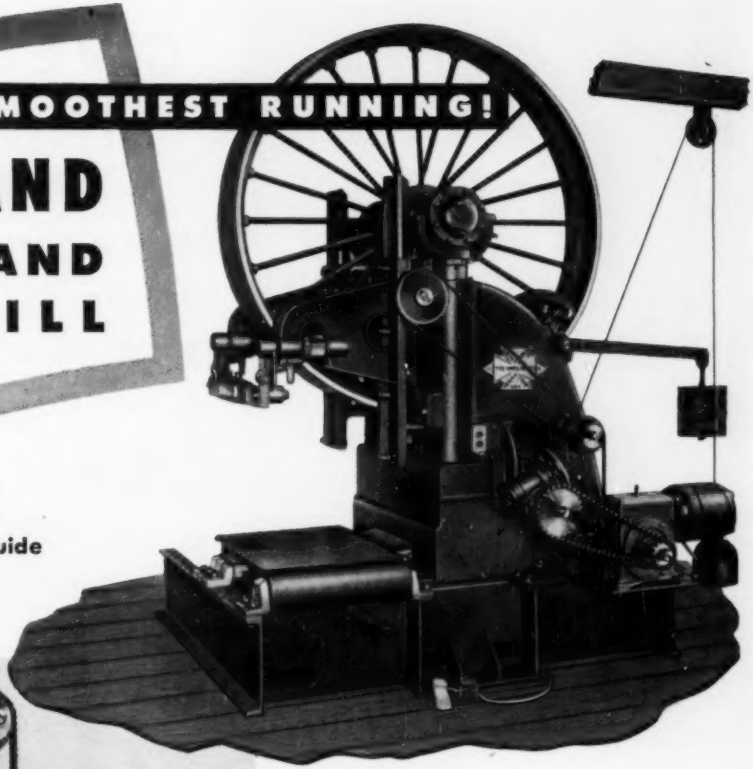
385 SOUTH MAIN STREET
MEMPHIS 3, TENN.

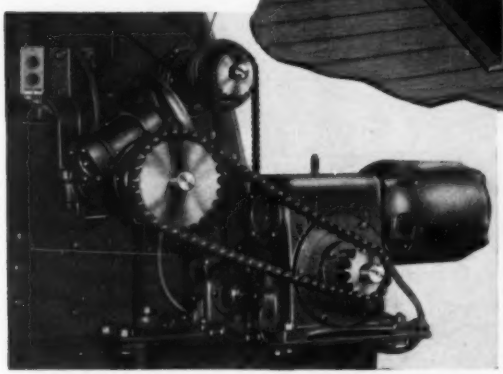
BOX 3044
SEATTLE 14, WASH.

SMOOTHEST RUNNING!

WHELAND 6′ BAND MILL

Now available with motorized top saw guide and top wheel lift.





Optional equipment on Wheland 6′ Band Mill now includes motorized top saw guide, controlled by a reversible foot switch which can be located at any convenient position for either the sawyer or offbearer; also a motorized wheel lift for raising and lowering the top wheel, controlled by a two-way push button switch which is located on the offbearer's side of the main housing.

See a Wheland 6′ Band Mill in action and find out why so many lumbermen agree that it's the best in the field. Wheland 6′ Band Mill offers you every advantage:

BETTER SAWN LUMBER—Accurately balanced wheels and extra sturdy construction give perfect alignment, smoother sawing.

LESS KERF—This Band Mill saves up to 16% more good lumber from each log you saw as compared with circular sawn lumber.

FASTER PRODUCTION—This band mill cuts lumber faster than any other. Extra quality construction gives you faster production day after day. For 12″ or 13″ wide saws.

Wheland also builds band mills in 54″ and 8′ sizes with all auxiliary equipment to match.

WRITE for bulletins giving full facts and figures on Wheland Band Mills. No obligation.

The WHELAND Company

MANUFACTURERS OF COMPLETE SAWMILLS AND AUXILIARY MACHINERY
CIRCULAR SAWMILLS—HEAVY, PORTABLE • BAND SAWMILLS • EDGERS AND TRIMMERS • TRANSMISSION AND CONVEYOR MACHINERY

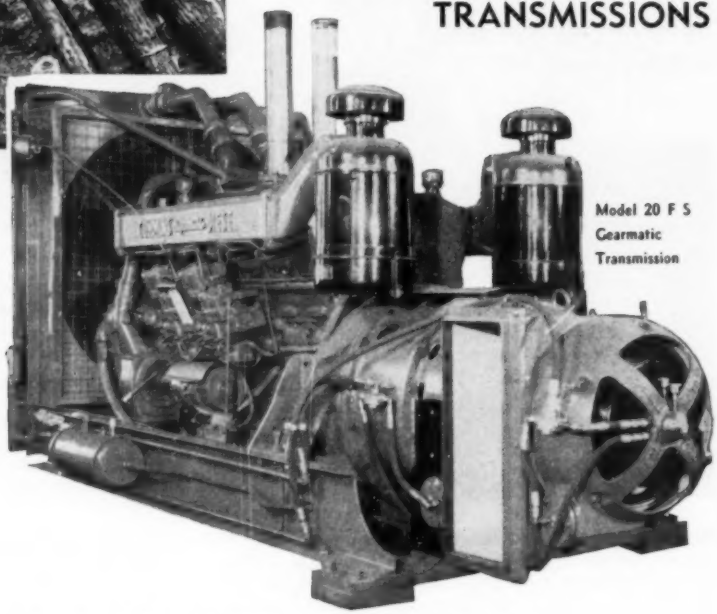
CHATTANOOGA, TENNESSEE

FOR OVER 80 YEARS—THE FOREMOST NAME IN SAWMILL EQUIPMENT

"GIVE IT THE GEARS"

There are no straight hauls in logging–or any smooth curves either. To keep logs moving over rough ground you need the shock power of

GEARMATIC
TRANSMISSIONS



Model 20 F S
Gearmatic
Transmission

For power units of
60 to 1200 H.P.
Industrial models of
2, 3, 5 and 7 speeds.

Air Actuated Quick Change Transmission

GEARMATIC CO., LTD.

636 West 6th Avenue **Vancouver 9, B. C.**

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Northwest Motor Parts
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OREGON
Western Equipment Co.
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Roseburg, Oregon

How to haul BIGGER PAYLOADS without overloading

It's dollars to doughnuts that you want to haul a whopping big load of logs every time out. But you certainly *don't* want to overload your truck—and have it quit on you before its time.

To haul bigger loads without overloading, *you've got to have a truck designed especially for your operation.* A Dodge "*Job-Rated*" truck is exactly such a truck!

You'll find a lot of reasons why a Dodge does such a bang-up job with big loads. For example, better weight distribution permits a Dodge "*Job-Rated*" truck to carry more weight on the front axle, as a result you can carry *more payload* on your truck.

But that's not all! All load-carrying units of a Dodge truck are "*Job-Rated.*" You get a hefty, husky frame that's got what it takes to handle Paul Bunyan timber. And you get springs, rear axle, wheels and tires that are factory-engineered to stand up under big loads.

But why not let your nearby Dodge dealer show you *all* the reasons why a Dodge "*Job-Rated*" truck will enable you to carry bigger payloads? See him soon.

DODGE "Job-Rated" TRUCKS

Increase your skidding range, flexibility and speed with rubber-tired TOURNASKIDDER

In these days of increased timber demands and rising operational costs loggers want tools that pay off in more work done . . . in less time! That's why you'll want to know more about LeTourneau Tournaskidder, newest, highly successful log skidder now on the job on many Pacific Northwest logging operations. When teamed up with a rubber-tired arch, Tournaskidder gives you a high-speed, 19 m.p.h., 100% rubber-tired team that works three times faster than crawler units. Allows you greater flexibility in operation . . . travels along roads, tracks or cross-country . . . permits more economical extension and development of timber cuttings to extreme range of logging property.

Hauls average 5,000 to 6,000' . . . grades to 35%

At one typical Vancouver Island operation this Tournaskidder, working on grades up to 35%, economically hauled loads an average of 5,000 to 6,000 ft. Giant 21.00 x 25 low-pressure tires and instant 4-speed gear selection with Tournamatic constant-mesh transmission puts Dozer's 186 "horses" to work on all four wheels . . . gives machine ground-grip traction for hauling up steep grades, working in tough footings. Under normal roading conditions, a turn of logs can be hauled out in 3rd gear. Because of this high-speed operation, economical haul distances are greatly extended with Tournaskidder as compared with conventional crawler tractors.

The revolutionary winch, for use with or without arch, mounts on Tournadozer frame . . . is conservatively rated at 67,000-lb. cable pull . . . electric switch-controlled . . . powered by twin 2-speed electric motors, short-coupled to drum. Standard two-speed motors spool cable at 56 ft. per minute @ 67,000-lb. pull, or 113 ft. per minute @ 33,500-lb. pull . . . drum carries 550 ft. of 1" cable . . . up to 1¼" cable can be used if desired. An optional "quick-release clutch" is also available for the winch.

Fast, mobile Tournaskidder runs anywhere on logging shows . . . can leave instantly for location miles away without usual flatbed delays, necessary when roading tractor equipment . . . is instantly available to clean out a landing, move a spar tree or guy lines, move a logging donkey, pull out a logging truck from mud or snow, etc.

Contact your LeTourneau Distributor for complete facts on this high-production Tournaskidder. He'll be glad to arrange a demonstration to prove Tournaskidder's ability to increase skidding range, flexibility and get out more logs per day for you. Write or phone him TODAY.

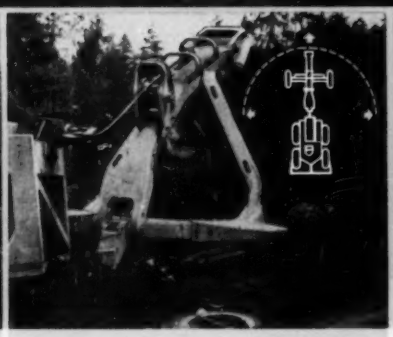
LET R. G. LeTOURNEAU, Inc.

PEORIA, ILLINOIS

Overall length 20'5", width 11'4" . . . total weight over 18½ tons. Tournaskidder with bulldozer, cab and free spooling on winch also available.

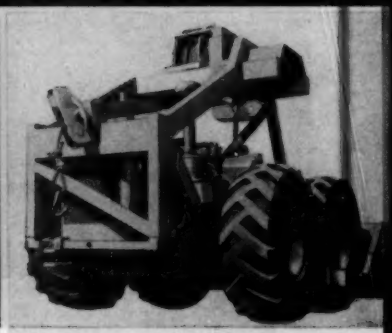
Dozer decks logs . . . opens skid ways

Interchangeable electrically controlled Angledozer counterbalances weight of load in rear . . . is always available for duty decking logs, opening skid ways, building and maintaining truck haul roads, plowing snow, etc. Disc-type 4-wheel air brakes have 719 sq. in. of braking surface per wheel—give safe, dependable control for winch work.



Reels in logs up to 90° from machine

Arch will not upset while reeling in logs at right angles to Tournaskidder—fairlead mounted on back of Tournaskidder helps distribute load pull evenly over arch frame. Result: Speeds log pick up . . . eliminates difficult maneuvering . . . permits yarding in logs from most favorable working angle—not possible with conventional crawler-tractor set up.



Winch exerts 67,000-lb. line pull

Winch works independently from electric PCU, mounted on front of overhead frame—spools and unspools at either 56 or 113 ft. per min. . . . carries up to 550 ft. of 1" cable. Operator controls all PCU-driven operations electrically from dash-board switches . . . no complicated levers to "fight"—this is especially important for fast hauling.

LET

Mail now to: **R. G. LeTOURNEAU, Inc., Peoria, Illinois, U.S.A.**

NAME .....

TITLE .....

COMPANY .....

STREET .....

CITY, PROVINCE .....

☐ Please have LeTourneau Distributor call.

☐ Please send us more information on: 19 m.p.h. C Tournadozer-Tournaskidder

Also facts on interchangeable attachments

☐ Bulldozer ☐ S-16 (13.5 cu. yd.) Carryall Scraper

☐ Angledozer ☐ Tree Pusher

☐ Root Rake ☐ Side-Boom Crane

THE INDUSTRIAL DIVISION OF BURRARD DRY DOCK CO. LTD. SPECIALIZES IN HEAVY MACHINERY FOR SAWMILLS

At Your Service

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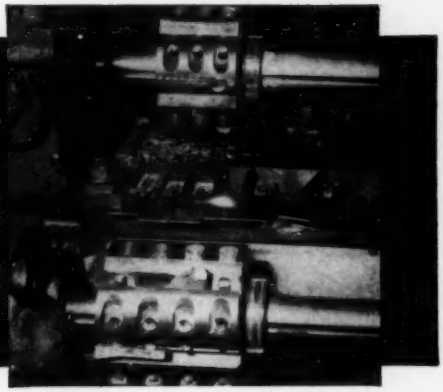
BURRARD DRY DOCK CO. LTD.

NORTH VANCOUVER, B. C. Telephone: MArine 4411

Another Weyerhaeuser Mill where

DISSTON Philbrick CUTTER HEADS



Mounted pair of Disston Philbrick Heads used by Weyerhaeuser Mill to run 4" crown moulding.

are

PREFERRED FOR PRODUCTION RESULTS!

Rough stock being fed into planer. Disston Philbrick Heads pull easily, cut smoothly, and take faster feeds because they are precision-ground, dynamically balanced.

Grinding room photo showing Disston Philbrick Heads regularly used at Weyerhaeuser Timber Company's Newark, N. J. Planing Mill.

From the rolling woodlands of the East Coast to the giant forests of the West, the name Weyerhaeuser stands for modern and progressive lumbering operations. And here, in the Newark, N. J. planing mill—as in other Weyerhaeuser plants from coast to coast—the cutter heads preferred for top quality, high-quantity production are Disston Philbrick!

Wherever lumber is planed or moulded, you'll find Disston Philbrick Generated Type (milled-to-pattern) Heads. These are heads specially designed for accurate trouble-free work: Each pair of heads can work a wide variety of patterns. Knife changes are quick and simple—no holders, clamps, or gibs! Specially heat-treated alloy heads last longer, run smoother without vibration or chatter because they are *dynamically balanced.* And the Disston Philbrick knife-and-head designs permit faster feeds and heavier cuts. Why not put modern Disston Philbrick Generated Type Heads to work in your plant. You'll get finer quality output, more footage on less investment, and lower operating costs!

Disston "Cutting Angles"—a new cutter head service bulletin for the woodworking industry—contains helpful information on improving quality and cutting costs in planing mills. If you'd like to receive it regularly, write on your letterhead. Also FREE wall chart for planing mills showing standard woodworking patterns.

FIGHT WASTE

"SCRAP TURNED IN...IS STEEL TURNED OUT!"

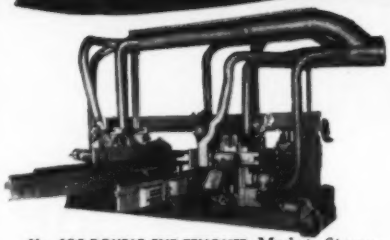
Steel mills urgently need more scrap *now.* You can help by keeping your steel scrap moving into channels serving steel mills.

HENRY DISSTON & SONS, INC.

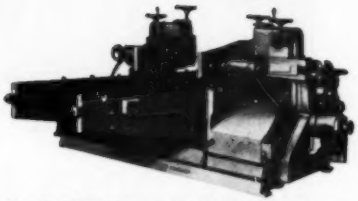
193 Tacony, Philadelphia 35, Pa., U.S.A.

Pacific Coast Factory: **Seattle, Wash.** • ***Canadian Factory:*** **Toronto 3, Ont.**

You Get Time and Motion Efficiency with

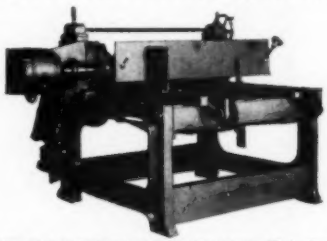


No. 400 DOUBLE-END TENONER. Made to fit your requirements in sizes up to 20'. Will square-cut up to 96" ahead of trim saws. Many accessories to increase usefulness. *Ask for Bulletin No. 400.*

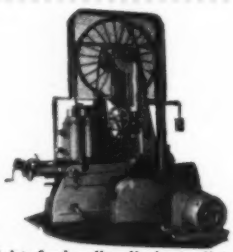


No. 300 DOUBLE CUT-OFF SAW. Accurate production at high rates of speed. Labor saving attachments such as cope motors, dado arbors and other devices are available for specific needs. *Ask for Bulletin No. 300.*

No. 442-MT COMBINATION SAW. Versatile machine for ripping, cross cutting, grooving, dadoing, beveling, mitering. Cuts up to 48" wide and rips up to 50" wide. Easily handles large stock. *Ask for Bulletin No. 442-MT.*

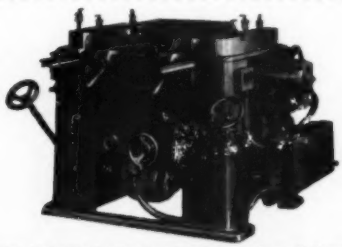


No. 435-H MULTIPLE CUT-OFF SAW. Cuts long boards into short pieces . . . will square up any size sheet . . . and will cut any number of grooves. It's an excellent plywood sizer. *Ask for Bulletin No. 435-H.*



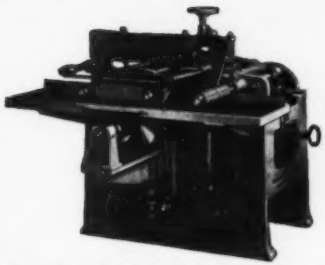
VERTICAL BAND RESAW

Eight feed rolls eliminate "stock wobble". Sizes 48" to 60". Variable feed drive; 100% ball and roller bearings. 54" Twin Band Resaw. Combination band rip and resaw. *Ask for Resaw Bulletin.*

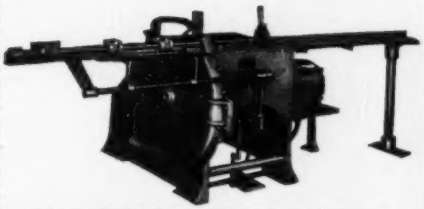


No. 326 MATCHER-JOINTER. For sash and door, furniture and box factories—as well as many special uses. Adaptable for jointing hogshead staves. Unequalled for "T" and "G" work. *Ask for Bulletin No. 326.*

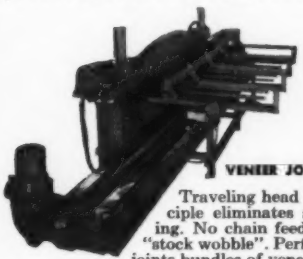
Mereen-Johnson MACHINES



No. 441 GANG RIP SAW. For fast production on the most difficult gang ripping jobs. Six power driven feed rolls . . . 12" or 19' saw space . . . up to 125 HP . . . variable feed drive up to 300 ft. per minute. *Ask for Bulletin No. 441.*

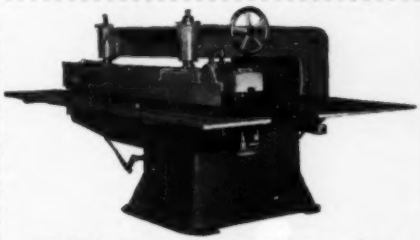


No. 477 CUT-OFF SAW. Capacity equals two or three swing, straight line or roller carriage cut-off saws—depending on the type and condition of the stock. Excellent for box work. *Ask for Bulletin No. 477.*

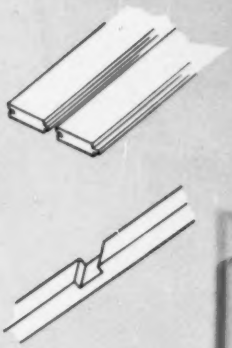


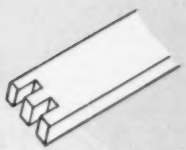
VENEER JOINTER

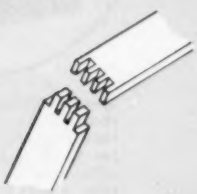
Traveling head principle eliminates shifting. No chain feed—no "stock wobble". Perfectly joints bundles of veneer up to four inches thick. Sizes from 90" to 212". *Ask for the Jointer Bulletin.*



VENEER SPLICER. Makes precision tapeless joints. Adjusts itself automatically for varying thickness of veneer normally encountered. Welded steel frame with 49" throat clearance at right. *Ask for Bulletin No. 50.*



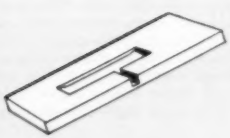


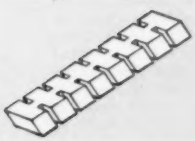


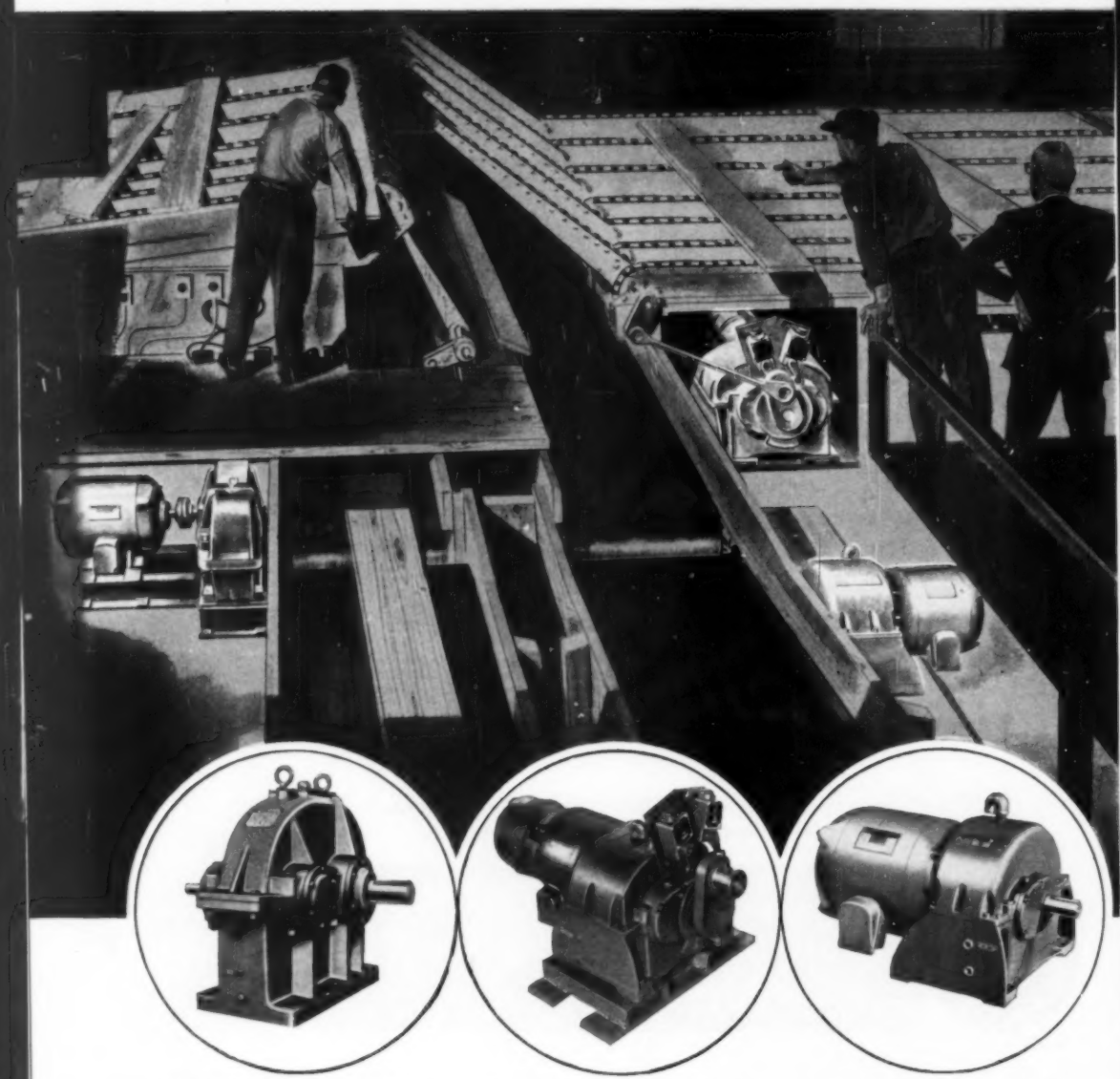
The experience—the equipment—the manpower for producing *Precision Machines.*

Mereen-Johnson MACHINE COMPANY

4401 LYNDALE AVENUE NORTH, MINNEAPOLIS 12, MINNESOTA







Speed Reducers—Westinghouse builds them with a strong tight case made of close-grained gray iron with extra-heavy ribs at stress points. Tapered roller bearings are used. The lubrication is sure and simple—a splash system channels oil to the bearings and bathes the gears in an oil mist.

The famous Motocylinder is a Westinghouse Gearmotor with special crank arm that produces a short-travel, sidewise motion. Motocylinders operate log unloaders, lift skids, swing-saws—anything that takes a pushing or turning action. After a Motocylinder is installed you can forget about it.

Westinghouse Gearmotors have fewer parts than any other make. The gears are *not* hung on the motor shaft—so there's less strain on the motor and it lasts longer. One company installed a Westinghouse Gearmotor in a dry kiln and forgot it was there. They found it 8 years later—still running.

Three good ways

to keep things moving in your mill

Do faulty drives on your handling equipment hold up logs and lumber in your mill? Do you spend too much time and money *maintaining* these drives? Here's what you can do:

Westinghouse Gearmotor, Speed Reducer, Motocylinder

For conveyors, transfer chains and live rolls you can't find a better drive than Westinghouse Gearmotors. Their first cost is low; they're simple and sturdy in design. But for applications where motors and separate Speed Reducers are desirable, Westinghouse supplies them in one co-ordinated unit. And where a short reciprocating motion is needed—lift skids for instance—the simple sure-acting Motocylinder is rapidly replacing steam and air cylinders.

Complete range of sizes, types and ratings

These three drives are all sturdy and dependable. The gears are made by the exclusive Westinghouse Taper-Hardening process. It produces a hard wear-resistant surface and tough ductile core. It's a rare day when the drives need any attention. And most important, they're all built in a complete range of sizes, types and ratings.

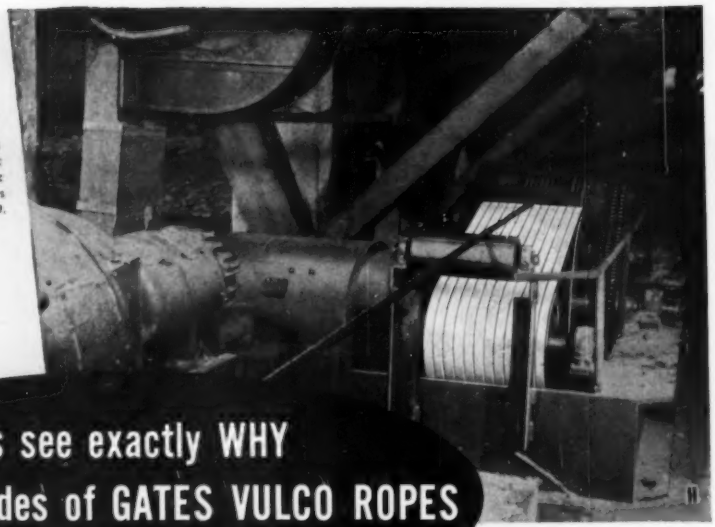
Call Westinghouse when you're buying equipment

Westinghouse can give plenty of useful assistance in selecting and applying geared drives—or *any other* electrical apparatus. When you build, expand or modernize, be sure to call us in. Offices in all principal cities. J-94874

YOU CAN BE SURE...IF IT'S Westinghouse

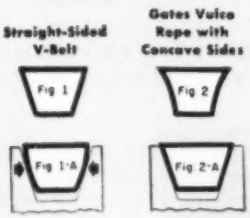
EQUIPMENT FOR THE LUMBER INDUSTRY

In the Batterton, Oregon, mill of the Buffalen Lumber Co., this cable operated carriage feed is driven by Gates Vulco Ropes—replacing a hydraulic feed which had long, slender hydraulic cylinders with the attendant problems of maintenance, leakage and alignment.



Let's see exactly WHY the Concave Sides of GATES VULCO ROPES mean lower V-Belt Costs!

What Happens When a V-Belt Bends



How Straight-Sided V-Belt Bulges in Sheave-Groove. Sides Press Unevenly Against V-Pulley Causing Extra Wear At Point Shown by Arrows.

The Concave Sides Fill out to a Precise Fit in the Sheave Groove. No Side Bulge! Sides Press Evenly Against the V-Pulley—Uniform Wear—Longer Life!

Every engineer knows how a V-belt *changes shape* when it bends around a pulley.

The top of the belt is under tension—making it grow *narrower.*

The body is under *compression,* causing the sides to bulge out!

Look at figure 1-A in the diagrams, herewith. There you see how a *straight sided* V-belt is forced to bulge in its sheave-groove—and this bulging naturally causes extra wear along the middle of the sides as indicated by the arrows.

Now look at the figure 2-A. There you see how the precisely engineered Concave Sides fill out to an exact fit in the sheave groove.

Clearly, the Concave Sides press *evenly* against the V-pulley. This means uniform wear; longer life! The Concave Sides have *full traction;* wear longer because of *full contact!*

To sum up: The Concave Sides of Gates Vulco Ropes (U.S. Patent No. 1813698) give you (1) Less wear, (2) More pulley contact, (3) More sure power transmitted when needed!

Only V-belts made by Gates are built with concave sides. Whenever you buy V-Belts, be sure you get the V-Belt with the Concave Sides—The Gates Vulco Rope!

CS 521

World's Largest Maker of V-Belts

Gates

Hose V-Belts
Molded Rubber Goods
for Industry

VULCO ROPE DRIVES

ENGINEERING OFFICES AND JOBBER STOCKS IN ALL INDUSTRIAL CENTERS

THE GATES RUBBER COMPANY • DENVER • U•S•A

I'll tell the world

TRUCKS HAUL PLENTY OF GOODS

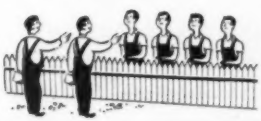
TRUCKS HAUL 301 LBS. PER PERSON PER DAY

"Makes a fellow proud to be driving a truck," says John Castner, national truck roadeo driving champion.

"Makes you realize what a big, important job the trucking industry does—every day of the year hauling an average of 301 pounds of freight for every man, woman and child in the United States! That's 8,300,000,000 tons in a year—all of it necessary, directly or indirectly, to the health, happiness and livelihood of the 150,697,000 human beings in this great country.

"Big figures like those can be confusing, but when you bring them down to 301 pounds every day for every person, you've got something you can talk about to your friends and neighbors. Let's *all* tell the world the truth about trucking and what it does for everyone!"

TELL 2 PEOPLE TODAY!



GET THEM EACH TO TELL 2 MORE

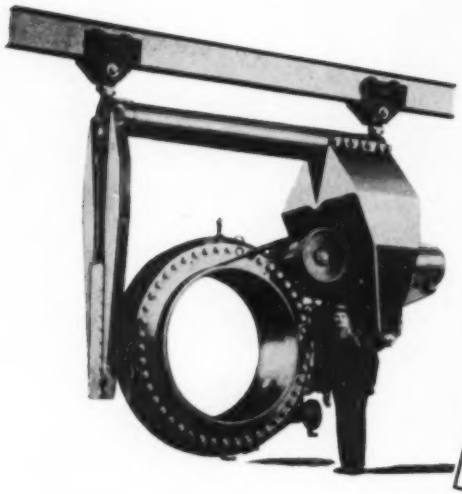
IF ALL 5 MILLION OF US FOLLOW THIS PLAN, 30 MILLION WILL KNOW!

Because the public must know the truth about the trucking industry, this message is brought to you by

KENWORTH TRUCKS ★ BUSES

FACTORY AND HOME OFFICE: SEATTLE, U.S.A.; DISTRIBUTORS IN THE UNITED STATES AND MOST FOREIGN COUNTRIES

Reprints of this message are available—write Kenworth Motor Truck Corporation, Seattle 11, Washington



Look at these Profit Making Features

INCREASED YIELD
. . . because the sawyer is enabled to make a better cut with a bark-free log.

LUMBER UPGRADED
. . . because logs reach the sawyer for full inspection without the bark.

LOWER MAINTENANCE
. . . because bark-free logs reduce saw maintenance about 30 per cent; lessen deck clean-up time.

CLEANER MILL
. . . because the logs enter mill with the bark and dirt washed away.

INCREASED PRODUCTION
. . . because there is no down-time due to bark-clogged machinery.

HANSEL HYDRAULIC RING BARKERS *Now Associated with the Following Names in the Forest Industries*

Bloedel & MacMillan, Ltd., (Port Alberni)—2 Units

Potlatch Forests, Inc., Lewiston, Idaho—3 Units

Weyerhaeuser Timber Co., Springfield, Oregon

Weyerhaeuser Timber Co., Snoqualamie Falls, Wash.

Weyerhaeuser Timber Co., Enumclaw, Wash.

Weyerhaeuser Timber Co., Longview, Wash.

Pulp Division, Weyerhaeuser Timber Company, Longview, Wash.

Weyerhaeuser Timber Co., Klamath Falls, Oregon

St. Paul & Tacoma Lumber Co., Tacoma, Wash.

Crown Zellerbach Corporation, Camas, Wash.

Canadian Forest Products, Ltd., Eburne Sawmill Division, Vancouver, B. C.—2 Units

Powell River Company, Ltd., Powell River, B. C.

Pilot Rock Lumber Co., Pilot Rock, Oregon.

HANSEL ENGINEERING COMPANY

1500 Westlake Avenue North
SEATTLE 9, WASHINGTON

1637 West Broadway
VANCOUVER 9, B. C., CANADA

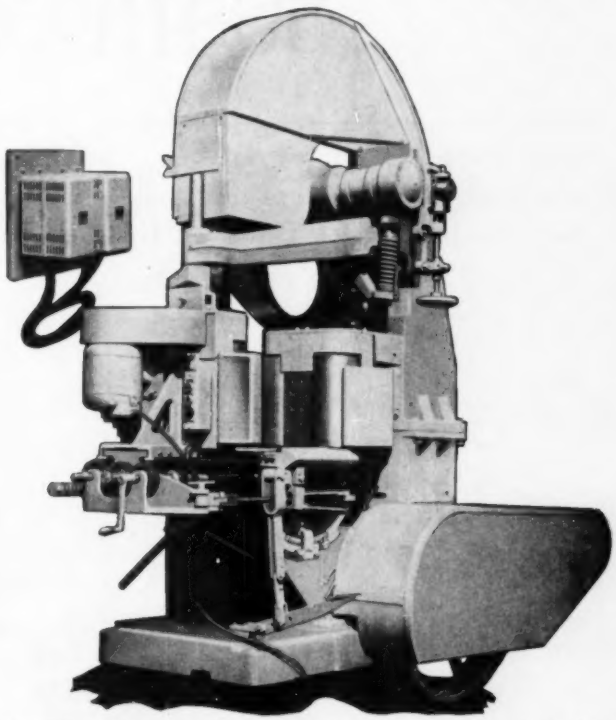
25 Reasons

Why the new MODEL E TURNER Resaw will make money for you...

*** Here are eight reasons—Our salesmen will give you the other 17 and many more!**

1. All ball and roller bearings
2. Self - centering or slab sawing. Easy change-over
3. Anti-friction bed
4. Tilts 25°
5. No moving parts below bed line
6. All controls convenient to operator
7. Rate of feed through four large dia., heavy duty, driven feed rolls from 10 to 300 f. p. m., **infinite range** by General Electric Thy-Mo-Trol drive
8. Most versatile and productive resaw made

- Precision Built
- Fast Feed, Heavy Duty
- Accurate Resawing
- Close Coupled
- Massive All - Cast Construction



THE NEW MODEL E TURNER RESAW is Available in three sizes—42", 48" and 52". See it in the following plants:

Anchor Bay Lumber Co., Richmond, Cal., L. S. Whaley Lumber Co., North Long Beach, Cal., Ponderosa Moulding, Inc., Redmond, Ore., Work Lumber Co., Monterey, Cal., San Jose Lumber Sales & Milling, San Jose, Cal., Van Belle Lumber Co., Spokane, Wash., Port Lumber Co., Sacramento, Cal., Stempel Mfg. Co., Dallas, Tex., Santiam Lumber Co., Sweet Home, Oregon and L. E. Whittaker Lumber Co., Philo, Cal.

International Sales and Service

TURNER Band Resaws and Rip Saws are manufactured in sixteen different models design engineered for use in sawmills, planing mills, box shook, and crate manufacturing plants, furniture plants, retail lumber yards, and all other wood re-manufacturing activities.

TURNER MACHINERY COMPANY • *DIVISION OF UNITED ENGINEERING COMPANY*

100 BRANNAN STREET, SAN FRANCISCO 7, CALIFORNIA • CABLE ADDRESS: TURMACH, SAN FRANCISCO

Cummins® Diesels do so many jobs... so much better

...because they're custom-built to fit the job!

On-highway trucks, buses

Industrial locomotives, cranes, shovels

Logging yarders and loaders, crawler tractors

Drilling rigs, centrifugal pumps, generator sets

Earthmovers, off-highway trucks

Work boats, pleasure craft

Lightweight, high-speed Diesels (50-550 hp) for these and many other uses

...because they're

BUILT NOT ONCE BUT TWICE

Need rugged power? Then you need lightweight, high-speed Cummins Diesels, custom-built to fit your needs. Each engine is built *twice*. It's assembled, run-in tested, disassembled and inspected, then reassembled and tested again. Consider Cummins' craftsmanship; the exclusive Cummins fuel system; our efficient and expanding parts and service organization. These all add up to minimum "down-time", more power and profit for the user. See your Cummins Dealer.

Diesel power by CUMMINS

CUMMINS Unmistakable DIESEL

TRADEMARK REG. U. S. PAT. OFF.

CUMMINS ENGINE COMPANY, INC., COLUMBUS, INDIANA

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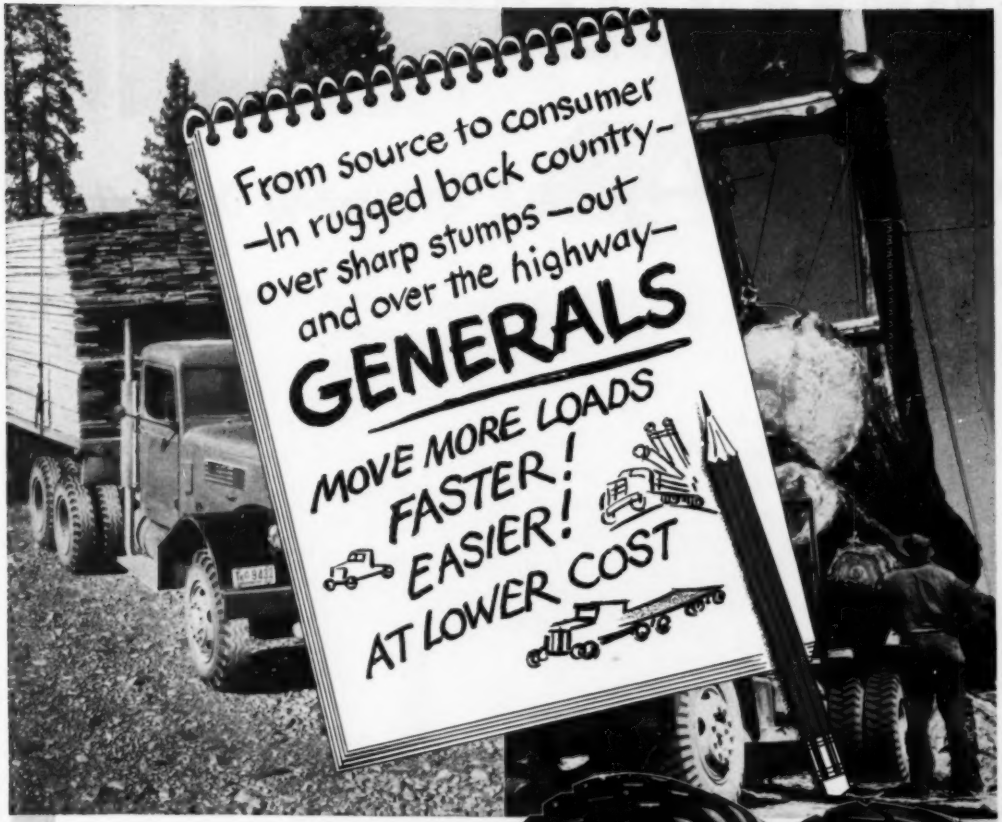


GENERAL H. C. T. Wide saw-tooth tread ribs and deep, sturdy shoulder cleats. Special shock-absorber construction prevents separation. More cords per inch for extra carcass strength. More original miles and more recap miles.

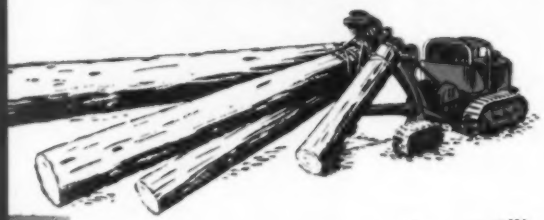
GENERAL L. C. M. Broad, deep, angled tread lugs and reinforced side-walls carry heavy loads easily, safely. Extra traction for off-the-road work. More rubber to resist cuts, bruises, snags. Free-rolling, quick-stopping on-the-road.

THE GENERAL H.C.T.

THE GENERAL L.C.M.

SPECIFY GENERAL TIRES ON YOUR NEW EQUIPMENT

UNEQUALLED Lug



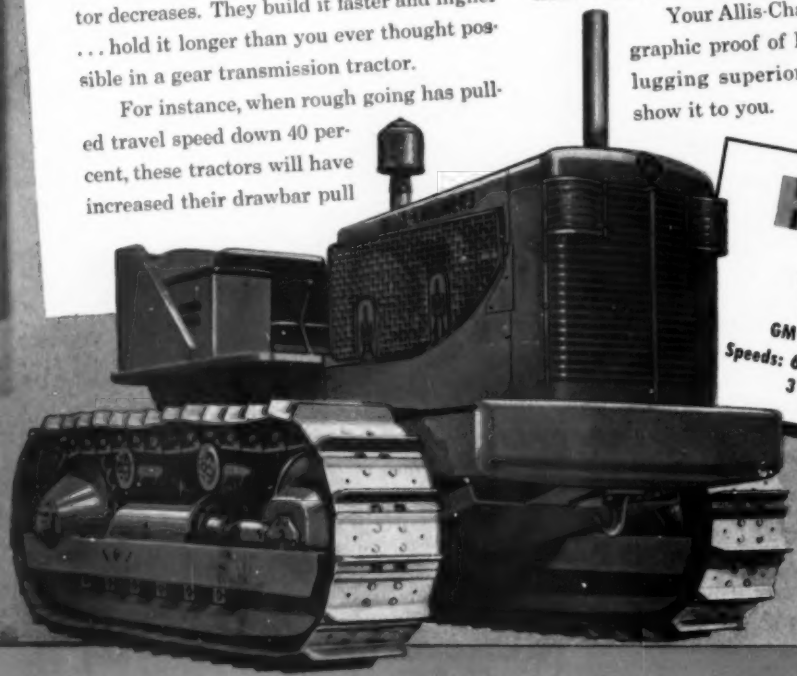
. . . now Yours with

One of the big reasons why the new Allis-Chalmers HD-9 and HD-15 Tractors are real logging standouts is their ability to plow through snags or mudholes, or to climb grades that otherwise would mean stalling or shifting into lower gear. These tractors take such temporary overloads in stride because their General Motors 2-Cycle Diesel engines start developing greater drawbar pull as soon as the load increases and speed of tractor decreases. They build it faster and higher . . . hold it longer than you ever thought possible in a gear transmission tractor.

For instance, when rough going has pulled travel speed down 40 percent, these tractors will have increased their drawbar pull almost 20 percent over rated pull. They will lug down almost 45 percent from rated travel speed before drawbar pull even starts to fall off. Performance like this means less shifting . . . more time at work and more work done.

To take full advantage of this important engine characteristic, the HD-9 and HD-15 have longer truck frames, lower idlers and sprockets. That means more track on the ground . . . better stability . . . sure-footed traction . . . unequalled *lugability*.

Your Allis-Chalmers dealer has graphic proof of HD-9 and HD-15 lugging superiority. Ask him to show it to you.



HD-9

Weight, 18,500 lb.
70 drawbar hp.
GM 4-71 Diesel Engine
Speeds: 6 forward, to 5.68 mph.
3 reverse, to 4.43 mph.

Logging

The Newest, Finest Tractor Line on Earth

✓ Designed for Your Job ✓ Built to Take It ✓ Easy to Operate ✓ Easy to Service . . .

ability

These Two Newest Logging Tractors

HD-15

Weight, 27,500 lb.
102 drawbar hp.
GM 6-71 Diesel Engine
Speeds: 6 forward, to 5.80 mph.
3 reverse, to 4.57 mph.

Guard Equipment

Canopy, heavy fenders, fuel tank and seat guard, bottom guard, engine side screens and grille screen

ALLIS-CHALMERS

TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

PAY-LOAD!

WORLD'S LARGEST PNEUMATIC-TIRED FORK TRUCK . . .

ROSS SERIES 24

HANDLES LOADS WEIGHING 16,000 LBS.—72" WIDE!

•

CUTS LOADING, UNLOADING TIME OF TRUCKS, KILN CARS, RAILROAD FLAT CARS!

•

HUGE 14.00-20 TIRES, PLENTY OF WEIGHT ON DRIVING WHEELS—MINIMUM YARD SURFACING REQUIRED!

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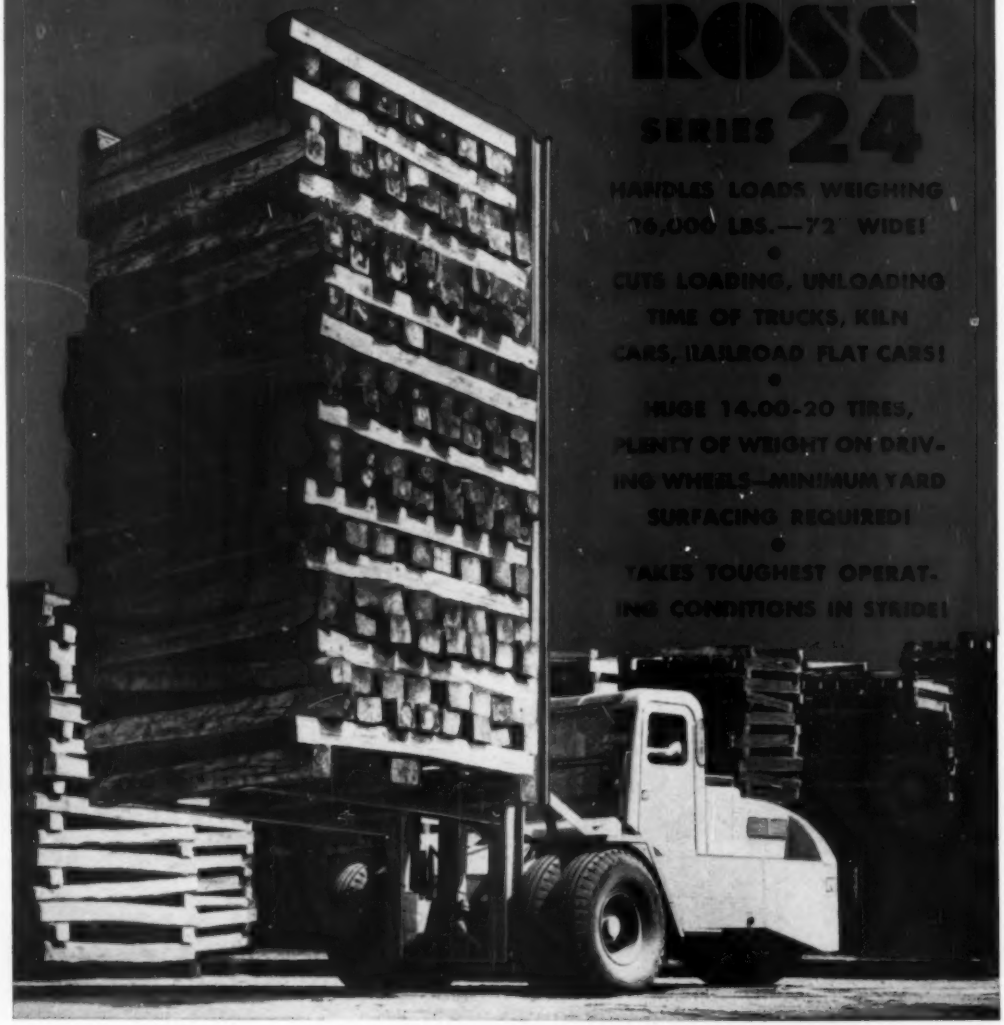
TAKES TOUGHEST OPERATING CONDITIONS IN STRIDE!



It will pay you to get all the details about this giant Ross fork truck—designed expressly to bring you new low lumber handling costs. Write today.

Rely On ROSS

THE ROSS CARRIER COMPANY

Direct Factory Branches and Distributors throughout the world.

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MACK TRUCKS

Keep Pace...

WITH YOUR STEPPED-UP PRODUCTION

Today's conditions call for trucks that can keep pace with accelerated production schedules. More and more truck owners are realizing that trucks are really "Tools of production"... that intensified service makes doubly important the extra durability and sustained reliability they get from hard-working Macks.

Make sure *your* truck equipment measures up to the rigors of present-day demands. See your nearest Mack branch or distributor for the right truck for your particular job. Prove to your own satisfaction that "Built Like A Mack" means uninterrupted production... extra long life... more tonnage moved at lower cost for many years to come.

Mack TRUCKS

outlast them all

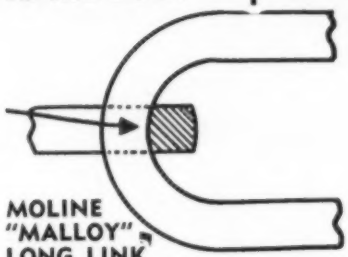
Mack Trucks – Los Angeles • Denver • San Francisco
Seattle • Portland • Salt Lake City • Factory branches
and distributors in all principal cities for service and parts.

In punishing logging operations, Mack trucks have proved their ability to "keep pace" with stepped-up demands. This diesel-powered Mack serves South Fork Logging Co. of Springfield, Oregon.

MOLINE products are sold through *performance*—not promise

DESIGNED to the JOB!

When you specify "Moline" you select chains that have proved their dependability–time after time–by the acid test of actual service in the sawmill industry.

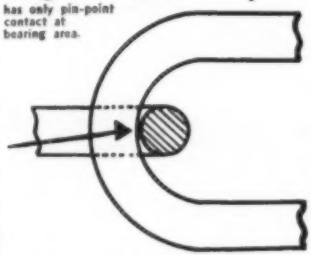


MOLINE "MALLOY" LONG LINK CHAIN

has large cross section and full bearing area to insure longer life, greater distribution of wear and more assurance of maintaining true pitch.

Conventional Long Link Chain

has only pin-point contact at bearing area.



HERE ARE 3 GOOD EXAMPLES:

MOLINE riveted drive chain

Designed for heavy drives and transfer conveyor purposes, this rugged, economical chain exceeds to "manufacturers' standards" —are interchangeable with standard chains of other manufacture —and can be furnished either as plain chains or fitted with a wide variety of attachments.

MOLINE (the original) roller top chain

It banishes sorting table drudgery and increases production 25% to 35%! There are no rivets to wear through; maintains accurate pitch; there is extra metal at friction points. Users have reported that MOLINE Roller Top chain pays for its entire cost within six to twelve months.

MOLINE flight conveyors

They are extremely strong and serviceable and have found wide favor for many industrial applications. These three features are important: (1) you save 25% to 50% of the original cost; (2) you can increase capacity 15% to 25%; (3) you save 15% to 30% of power requirement.

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DETACHABLE TRANSFER CHAINS
RIVETED TRANSFER CHAINS
RIVETED REFUSE CHAINS
(MALLOY) LONG LINK CONVEYOR CHAINS
CONVEYOR FLIGHTS
ROLLER TOP TRANSFER CHAINS

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MAKING MALLEABLE IRON CHAINS FOR 50 YEARS

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Electric Steel Foundry Co.
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Phone 46171

Fisher Bros. Company
Astoria, Oregon
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Western Equipment Ltd.
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New!

LIGHTWEIGHT 9 HP DISSTON INTERMEDIATE CHAIN SAW that handles any woodcutting job!

Lay that DA-211 against a log, and let the chips fall where they may! It's a pleasure to feel those 9 horses bite evenly and steadily through the wood. Remember, too, you need no other saw than a Disston Intermediate for a complete all-round woods job.

HERE'S the power chain saw you've been waiting for—the new 9 hp, 2 cylinder Disston Intermediate Chain Saw, the DA-211. This rugged, dependable production tool will never wear you out. Its 9 big horses are capable of handling any woods job, yet its balanced light weight makes it easy to heft. It's made to deliver years of satisfying, trouble-free cutting power. That means it stays out of the shop and remains in the woods, where it belongs.

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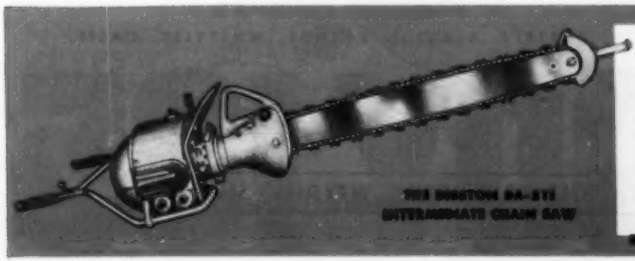

Henry Disston & Sons, Inc. (Adv. Dept.)
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Please send me information on the 9 hp DA-211 Disston Intermediate Chain Saw.

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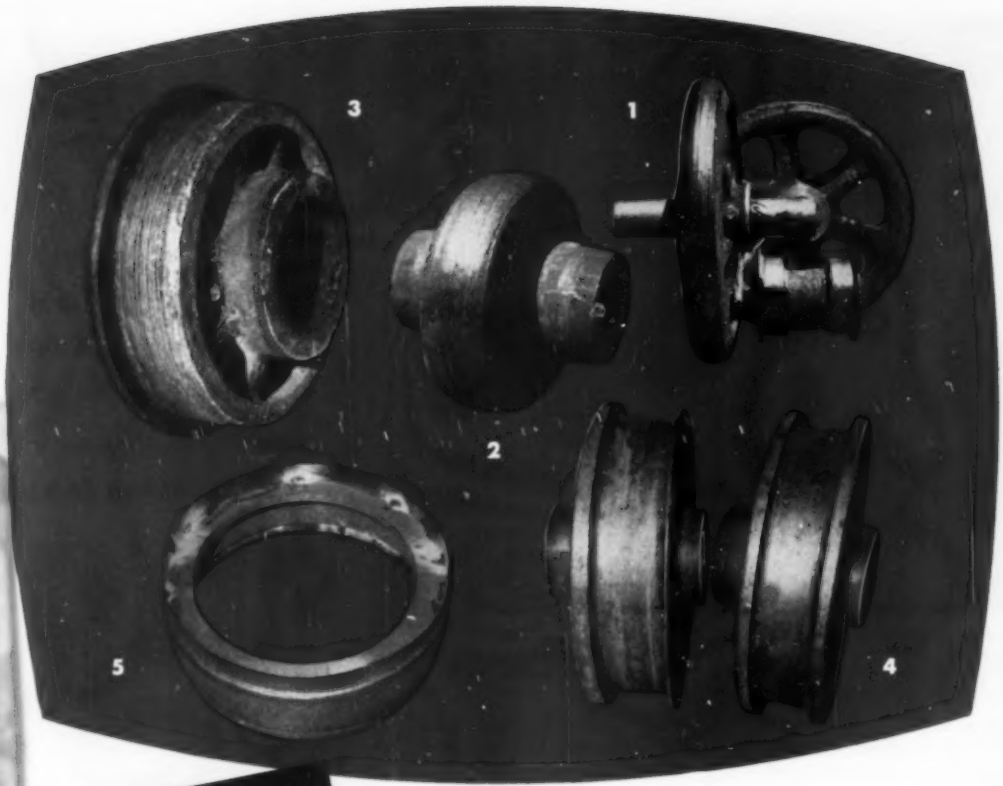
City..... State.....

15-A



1. SHOVEL IDLERS
Built up and hard-faced automatically with Stoody 105, this shovel idler and tractor roller are exceptionally smooth and long wearing.

2. SHOVEL ROLLS
Note the even deposit on this shovel roll. Stoody 105 will at least double its useful life—save hours of downtime.

3. MINE CAR WHEELS
Mine car wheels sustain heavy wear from track debris. Stoody 105 retains size and roundness—keeps wheels on the job under difficult conditions.

4. CRANE WHEELS
Here, unprotected and hard-faced crane wheels are compared. Note wear evident on flange of unprotected wheel, left. Stoody 105 has held size on wheel at right.

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Surface of this brake drum is automatically hard-faced with Stoody 105 and subsequently machined. Resulting smooth surface far outwears unprotected drum.

STOODY 105 keeps the wheels of industry turning . . .

with less wear—less down time—less cost

Everywhere you look—in almost any industry, you see wheels in use. Some work *in* earth, others operate metal against metal . . . *but almost all are subject to heavy abrasion, loss of size, loss of life!* The quick, sure way to reduce wear . . . to keep these wheels of industry rolling . . . to cut maintenance is to hard-face with STOODY 105! It's a time-tried, proven procedure that saves equipment and dollars and reduces the need for hard-to-get replacements.

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APPLIED BY THE ARC OR ELECTRIC WELDING PROCESS

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Sure, it takes *horsepower* to pull a heavy load up a steep grade, whether it is on the highway or off. But don't overlook the part your gear box must play in delivering that horsepower to the wheels. It's in the transmission that the horsepower goes to work.

Only a transmission with exactly the right gear ratios for your particular operating conditions will permit most effective use of your engine's horsepower at all times. That means faster, more economical hauling.

Take advantage of the wide range of gear ratios you can select from the complete line of Fuller Heavy-Duty Transmissions and Auxiliaries.

There is one combination that is exactly right for your requirements . . . that gives you all the *added* advantages of Fuller's easy shifting and long, long wear-life. Write today for Fuller's 12-page catalog.

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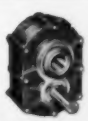

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Run more smoothly over the guides

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Put a mike on any Simonds Wide Band at any point . . . then at the point farthest away. There's no variation in the thickness of the band . . . because Simonds special heavy grinding equipment does that job as nothing else can. And this means a truer saw *that runs over the guides more smoothly and with less vibration . . .* a saw that not only holds its uniform tension but is much easier to tension when needed.

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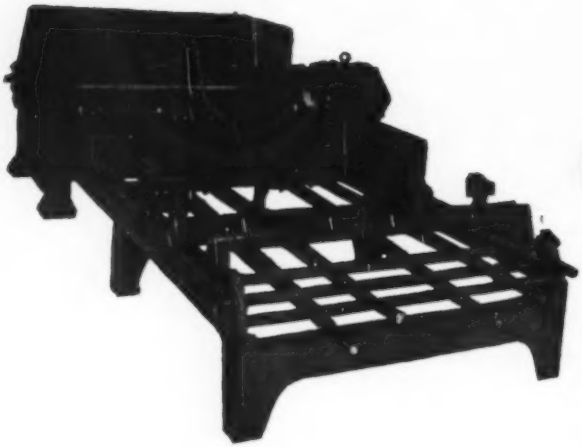

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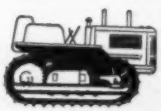
PORTLAND  OREGON

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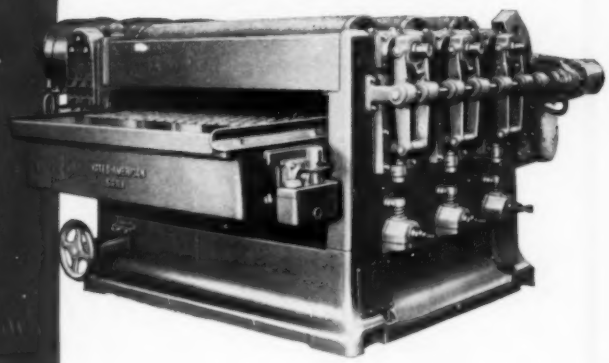
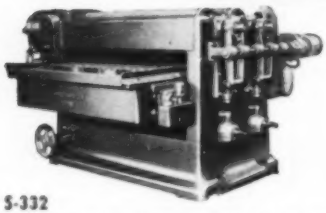
improve performance at the "Finish Line"

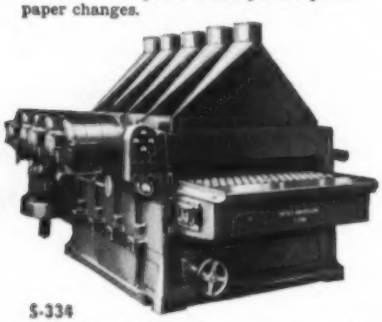


S-333 THREE-DRUM SANDER—note massive construction of frame, base and bedways.

WITH THE NEW "S" SERIES ENDLESS BED SANDERS



S-332
TWO-DRUM SANDER — with hood removed. Well-exposed drums permit quick paper changes.



S-334
FOUR-DRUM SANDER — showing convenient controls, feed drive and drum motors.

Since 1883, when Yates-American engineers built the world's first power sander, they have made it their business to watch the "finish line" closely. As a result, Yates-American provides modern woodworkers with equipment capable of smooth, faultless sanding—high production efficiency — and long life.

The new "S" series of endless bed sanders is typical of this quality. Tapered wedge blocks enable operators to make extremely accurate drum adjustments. They eliminate the inaccuracies due to wear between the hoisting screw and nut, a common fault on machines of conventional design. Drum shafts are heavy and have short extensions to prevent whip and springing under load.

Variable speed drive provides an infinite range of feed rates — from 12 to 36 feet per minute. Included as standard equipment, it enables operators to select the exact speed needed for the work at hand. And to assure smooth bed travel, long link and pin life, the chain links of the endless bed are continuously lubricated by a positive oiling system.

Check now to see how Yates-American can help you improve your sanding operations. The "S" series is available in two-, three- and four-drum machines — each in sizes from 31 in. wide up. Write today for complete information.

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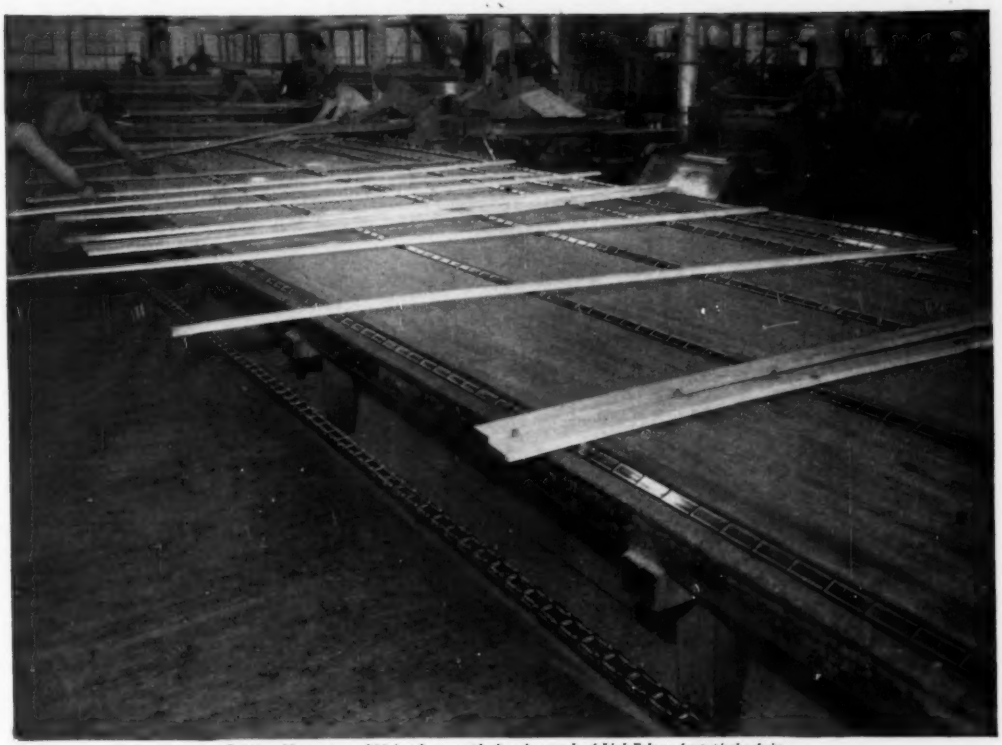
no ONE chain serves every purpose



Sorting-table conveyor, 300 feet long, employing six strands of Link-Belt roof-top pintle chain, selected to provide efficient, convenient transfer of pieces from surfacer in a flooring mill.

LINK-BELT offers the RIGHT chain for every job . . . engineered to meet your requirements

Typical chains from the complete Link-Belt line

Roof-top pintle chain—for transfer conveyors, each strand presenting a sturdy, moving ridge.

Class H Pintle chain—excellent for conveyors that slide, because of broad wearing surfaces.

Class SS bushed roller chain with offset sidebars—for heavy drive service at moderate speeds.

Class H drag chain—for drag conveyors, handling sawdust or other refuse in runways or troughs.

Link-Belt offers no single "cure-all" chain to handle every job. From the most complete line of chains and sprockets—we can recommend the best type to fit your particular requirements—cast, combination, forged and fabricated steel, roller or silent. So, whatever your chain problems, large or small, Link-Belt engineers will work with you or your consultants to help solve them.

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12,840-B

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46-ft. Hull Being Framed.

Same Hull Ready To Launch.

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NOTE: The heavy transverse frames overlayed with continuous longitudinal framing gives double strength — guarantees a smooth steel hull.

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SOME of the many types of BAIER built and designed work boats serving the lumber, plywood, and paper industry on the West Coast.*

24-ft. Pond Boat, 115 H.P.

OWNERS agree less maintenance and operating costs with BAIER Steel Boats.

ALL sales direct from our yard to you. (In Canada see Westminster Iron Wks.)

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Horsepower _____ ☐ Diesel ☐ Gas

Desired Speed _____ M.P.H. Delivery _____ Days

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No Obligation.

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"ALL RINGS FREE..."

"...all engines lubricated with TEXACO URSA OIL X in excellent condition after 3 years' tough service"**

— reports Otis Judd,
Superintendent,
Logging Equipment and Machinery,
Stearns Coal & Lumber Company,
Stearns, Kentucky

Diesel powered logging equipment used by Stearns Coal & Lumber Company operates in rough, mountainous country in southeastern Kentucky. Working conditions are very bad. Use of *Texaco Ursa Oil X*** has been a big factor in keeping engines in tiptop condition and equipment on the job.

"FOR the past three years, since using *Texaco Ursa Oil X*** in all our Diesel engines," says Mr. Judd, "we have been free from any lubrication trouble. In going over our equipment after this period of severe service, we found all rings free, less than .001" wear on bearings, and all moving engine parts in excellent condition."

You, too, can keep your engines in excellent condition and your equipment on the job with *Texaco Ursa Oil X***. Heavy duty gasoline and Diesel engines both run cleaner with this fully detergent and dispersive oil that has superior oxidation-resistance.

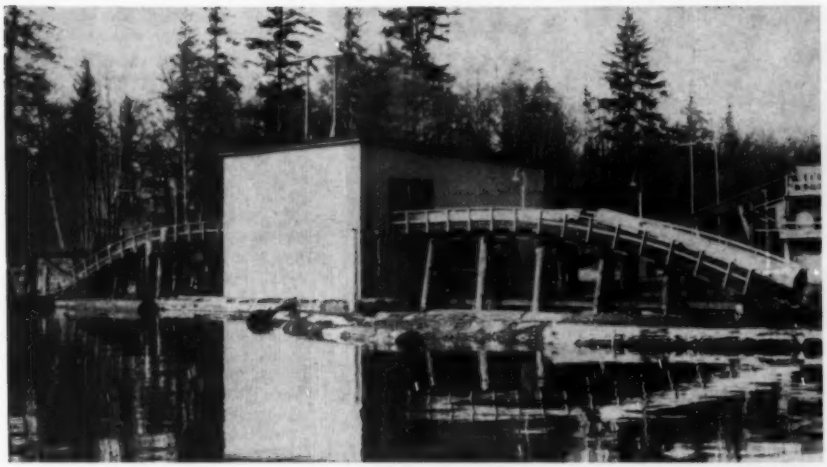
*Texaco Ursa Oil X*** keeps harmful deposits from forming on engine parts. This means better compression and combustion, assuring less fuel consumption . . . longer parts life, lower maintenance costs.

Let a Texaco Lubrication Engineer explain in detail the cost-saving advantages of *Texaco Ursa Oil X*** and other Texaco Lubricants for the lumber industry. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

TEXACO Lubricants and Fuels
FOR THE LUMBER INDUSTRY

Faithfully yours 50 *for Fifty Years*

TUNE IN . . . TEXACO STAR THEATER starring MILTON BERLE on television every Tuesday night. METROPOLITAN OPERA radio broadcasts every Saturday afternoon.



This is the whole log barking unit at the Weyerhaeuser Timber Co.'s Snoqualmie Falls sawmill. The building houses a Hansel hydraulic ring barker. Bark-covered logs enter barker over log haul at left. Stripped clean of bark, they leave the barker over the log haul at right.

TREND TOWARD WHOLE LOG BARKERS

Forward-looking sawmill operators everywhere expect the day will come when log barkers will be regarded as conventional equipment, and they base their prediction on the factor that influences most operators —economy.

The advent of the whole log barker in sawmills following their successful use in pulp mills gives promise of becoming one of the most important developments in forest products manufacture that has ever taken place in the industry. While up to now the idea has been adopted by large mills, there is every reason to believe that barkers will become available which will be economically possible for use in smaller mills.

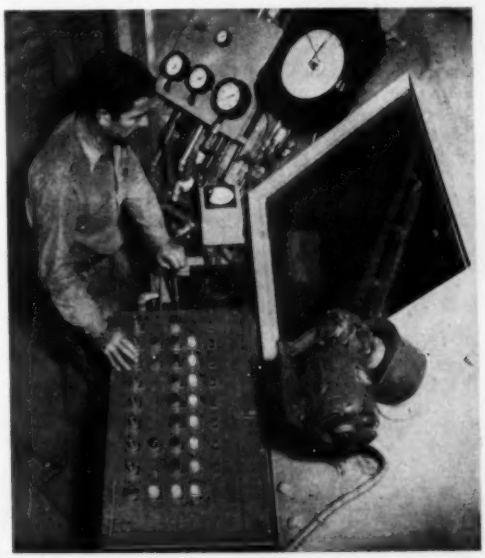
So far, for the most part the barker equipment that has been installed in sawmills has been with a view to providing clean logs for chipping, and while that may be the dominant consideration in the future as well as at present, engineers maintain that installation of barkers for the treatment of saw logs would pay in the long run.

One estimate is that the use of barkers gives an advantage of at least 5 percent in upgrading because the clean log gives the sawyer a better opportunity to size up the log as it goes through the mill. On that basis, the sawmill handling a fairly substantial annual cut could well pay off the investment in barking equipment in two or three years.

Other advantages of barking saw logs are reduction in saw breakage and prolongation of the life of the saw. The barker also makes for a cleaner operation and consequently a safer one as the mill is automatically cleared of bark and other impeding refuse.

Some mills have to make a decision as to the whole log barker and the slab barker. There is a division of opinion on this, as there is on most sawmill problems where engineering is involved.

One company, B. C. Forest Products, Ltd., recently chose a whole log barker for its Victoria mill on the ground that it made possible greater recovery from the log, gave more production per man hour, provided added safety by removing rocks that might be embedded in the log sur-



Barker operator watches progress of log through thick glass window. He controls barker machinery from control panel in foreground.

Barked logs on Sumner Bellingham-type hydraulic whole log barker output deck enroute to sawmill at Weyerhaeuser Timber Co., New North Bend, Ore. mill. Arm over deck carries high-pressure water from pump to nozzles.

face and giving the sawyer a tipoff of the presence of metal such as spikes and wire. When making this analysis it was figured that barkers provided 5 percent greater recovery, equalling about $3.50 per thousand feet. The substantial economy thus effected was indicated by the mill's average cut of more than 70,000,000 feet a year.

Weyerhaeuser now has four hydraulic sawlog barkers operating in its Washington and Oregon mills. High-pressure water jets are now tearing the bark from logs in company mills at Longview and Snoqualmie and at Springfield and North Bend, Oregon. A barker is also to be installed at Weyerhaeuser Mill "B", Everett, Wash., and at Klamath Falls, Ore.

In California redwood region, sawmill operators have long looked forward to the day when mechanical means would be found for economically removing the heavy bark from redwood logs. Within the two years a whole log barker was installed in the big mill of the Hammond Lumber Co., Samoa, and the results were so satisfactory that a second unit has now been installed.

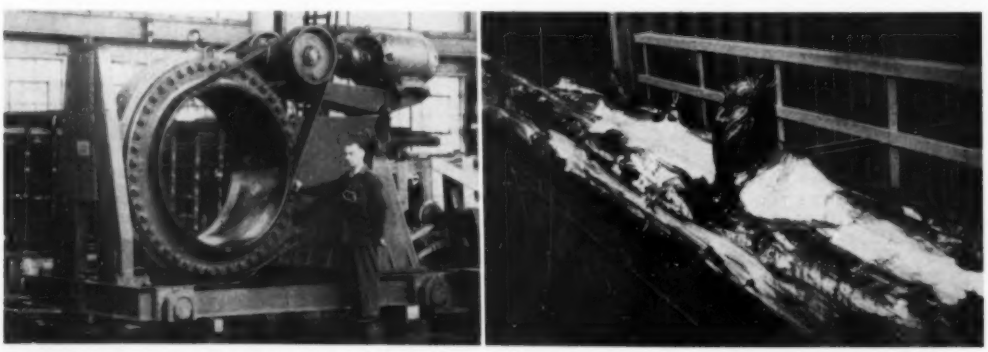
At Tacoma, Wash., the St. Paul and Tacoma Lumber Company has just put into operation a whole log barker. This unit was not only installed to bark logs for the company's large new chipping plant but will be used to bark nearly all of the logs that are put through the company's big sawmill.

In the deep south sawmills are giving the matter of whole log barkers serious attention. The Crossett Lumber Company, Crossett, Ark., is among the progressive southern sawmill concerns which plans a whole log barker installation. It is interesting to note that a Swedish log barker manufacturer is now establishing a branch in the south to manufacture log barkers.

Interest in whole log barking is not confined to the mills in the Douglas fir and redwood regions. Western pine mills find the idea attractive as is evidenced by barker installations in the plants of Potlatch Forests, Inc., Lewiston, Idaho; the Pilot Rock Lumber Co., Pilot Rock, Oregon and the Weyerhaeuser Timber Co., Klamath Falls, Oregon.

First installation of a hydraulic barker at a British Columbia sawmill where it will be used only for saw logs is at Pacific Pine Co., which produces about 70,000,000 feet of lumber annually at its two mills near New Westminster. A barker with 60 inch opening—probably a Simons—will be erected there early this year, for operation by midsummer.

Paul Heller, technical manager of Pacific Pine, summarizes the reasons for installing a hydraulic barker in a sawmill as follows:



Showing the elements and mechanism of a Hansel ring whole log barker. This log with all the bark removed has just left the Hansel ring barker.

1. Higher production of lumber as a result of fewer stoppages.

2. Fewer replacements of saws because of the cleaner logs being sawn.

3. Higher overrun.

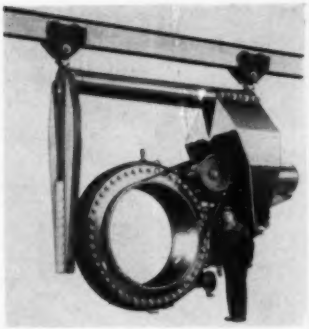
4. Increased visibility for the sawyer who can size up the lumber possibilities of the barked log much quicker and more easily and doesn't have to take off two or three slabs before he knows what he's sawing.

5. Increased utilization on a profitable basis of waste wood.

Pacific Pine operates A mill, devoted to the handling of larger logs, mostly fir, from 15 inches to 60 inch diameter, and B mill, which caters to smaller fir logs ranging from 8 inches to 48 inches and also handles cedar and hemlock. The barker will be built on piles close to the Fraser River dyke above A mill, to which the barked logs will flow with the river current. The barked logs for B mill will be held in a pocket and towed to the processing plant.

It is planned to install chippers and chip screens at both Pacific Pine mills.

An executive of one of British Columbia's largest wood using enterprises which currently has three different types of barker in operation but which is admittedly more interested in pulp logs than saw logs —Harry Andrews of Powell River Co.—sees a definite trend towards whole log barking, and he points out that whole log barkers and whole log chippers are inseparable. That is



This is the Hansel ring barker that has been installed in the St. Paul & Tacoma Lumber Company's new whole log barking and chipping plant, at Tacoma, Wash.

to say, he doesn't see how a whole log chipper could be operated efficiently without a whole log barker, although for saw logs, of course, a whole log barker could be used without chippers. This same authority regards the economy in breakdown, labor and saving in kerf as among the advantages of hydraulic barking for the sawmill.

The Hansel Ring Barker

Installations of the Hansel Hydraulic Ring Barker have begun to demonstrate to the sawmill industry the amazing benefits that can be obtained from whole log barking. This high production unit, although involving an initial investment to the sawmill of $175,000 to $250,000 has shown amazing profits in producing clean slabs, increasing overrun and quality, and in decreasing downtime and clean-up personnel.

Essentially a high production unit, the Hansel ring barker becomes most efficient in sawmills cutting upwards of 100 M fbm per shift. Working with log haul speeds of 50 to 150 fpm (and in some pulp operations up to 250 fpm) it is often feasible to bark all the logs for a two-shift operation in one shift at the barker plant.

The Hansel Engineering Company stresses the use of filtered water in the operation of the ring barker, but is quick to point out that the filtering process is comparatively inexpensive to install—and pays for itself in a very short time in protecting the barker, the high pressure pumps, and other associated equipment. The filter costs generally represent no more than 5% of the total investment.

Depending upon the size barker used, and the production required, the ring barker uses from 600 to 1200 gpm of water at 1100 to 1400 psi.

The company is now working on its twentieth ring barker installation.

With the experience gained over the past three years on the hydraulic ring barker in installations throughout the Northwest, the company is now branching out into several new developments to cater to the mills handling smaller logs, "farmer" wood, and southern pulp wood.

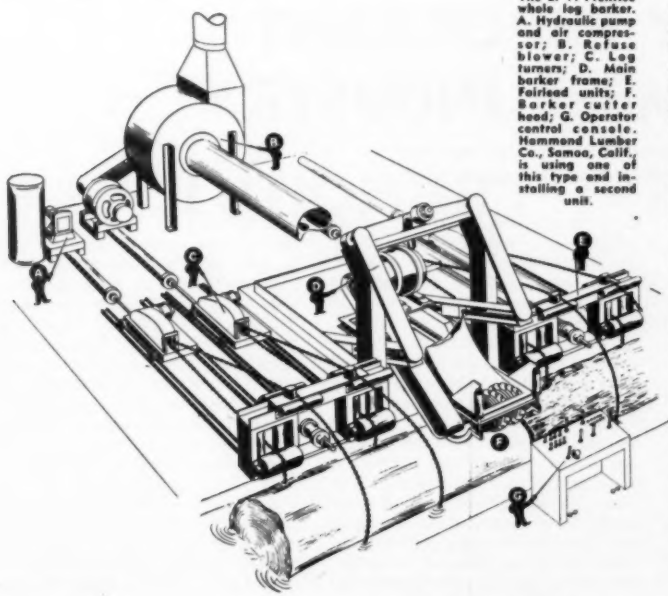
The presence of a second "wash" when the jets are striking the log at a different angle than during the first "wash" has resulted in an efficient removal of bark around the knots, in cavities, etc. A passing log intersects the jet circle twice, hence two "washes."

Since very high speeds of the jets relative to the log are easily attainable with this type of barker, there is no difficulty in designing a barker for high linear velocity of log travel.

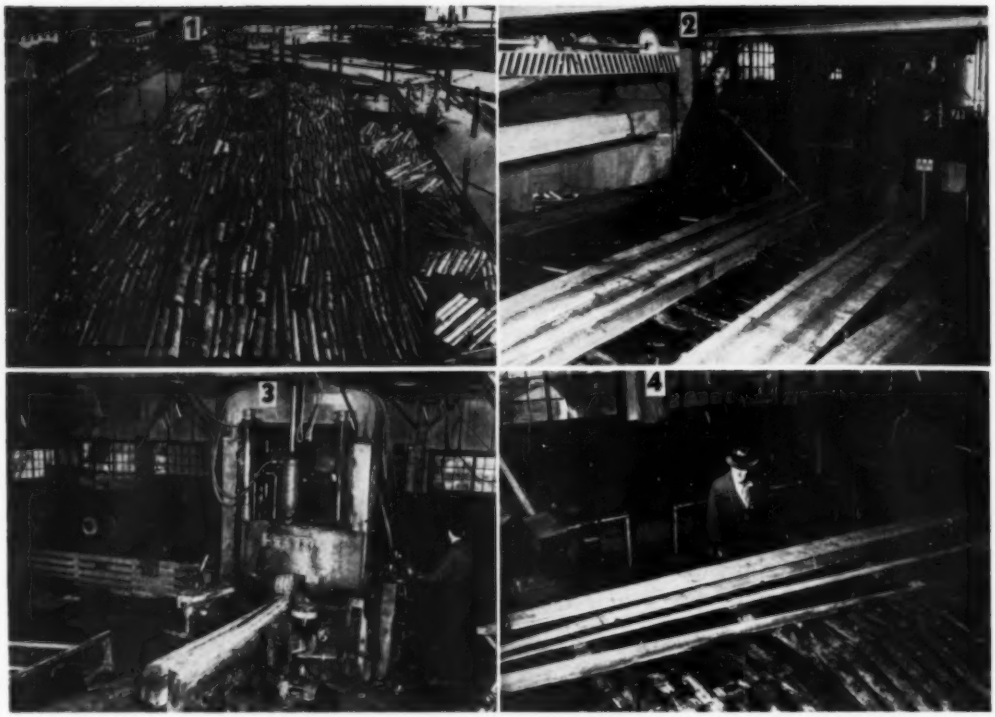
The first development along this line is a 24" ring barker, which is delivered to the customer complete with the barker housing and any hold-down devices that are required built right into the unit. All barker controls and piping are complete, and the entire unit is ready to bolt down over the bark disposal hopper in the mill. Units in 18", 30", and 36" sizes will also be available.

The newest development for the low production sawmill is the Hansel Sawmill Barker. This barker is designed for mills producing generally less than 100 M per day. It can be installed directly on the log slip with

(Continued to Page 120)



The E. V. Prentice whole log barker. A. Hydraulic pump and air compressor; B. Refuse blower; C. Log turners; D. Main barker frame; E. Fairlead units; F. Barker cutter head; G. Operator control console. Hammond Lumber Co., Samoa, Calif., is using one of this type and installing a second unit.



1. Alaska Pine devotes maximum space for sorting logs according to grade and size. This is one of the first stages in the process of selective manufacture of a wide variety of lumber products.
2. A 48-inch Wickes cant serviced by floor chains direct from the main rail case or by bridge crane from the large storage pit enables Alaska Pine to produce gang-sawn lumber from selected cants.
3. Cutting small western red cedar logs in a 36-inch ball-bearing Heaps, Waterous gang saw with flat belt drive powered by a 300 h.p. motor.
4. Irvington twin trimmers are used at the Alaska Pine Swede mill for correction trimming behind the edger.

FLEXIBILITY IMPORTANT IN B.C. LUMBER INDUSTRY

by **PETER SLOAN**, *General Production Manager, Alaska Pine & Cellulose Ltd., Vancouver, B. C.*

The last decade and, more particularly, the last year or two have been full of revolutionary changes in the lumber industry. It would be a task far beyond the limits of a short article to try and review all the developments which are at present taking place.

The idea that our forest wealth represents a crop, the harvest of which is not the sole property of our generation, but must be assured for our descendants, has passed the stage of controversy and has become legislation. It is obvious that the cost of growing and harvesting our trees is, and will be in the future, so high that utilization of timber as raw material for our industry must become as economical and as close as progress and human ingenuity will permit it to be.

Consequently the most outstanding developments at present taking shape are those aimed at closer and more profitable log utilization. Separation of bark from the log and usage of bark, segragation of sawdust and use of all available wood waste in the form of chips, either for pulp or building boards, are becoming everyday items of a sawmill operator's thinking and so the by-product has taken the limelight of our operating stage; the bonanza of chips is the new Klondike of every sawmiller.

And yet great changes are even now taking place in the techniques and methods of lumber manufacturing itself and they have come to stay. With few exceptions, it is impossible to keep sawmill operations specialized. The average operation can rarely procure the logs to make just one article. The apparent responsibility of the sawmill in our economy is to convert efficiently all logs which our forests produce into lumber to serve the many needs of the consumer.

Two Major Problems Confront Millmen

In a nutshell these are the two problems the modern sawmill operator has to solve. On the one hand he must cut logs of great variety in species as well as in sizes. On the

other hand he must be able to produce lumber for a great variety of ever changing markets. In the endeavour to solve both problems at the same time mechanical devices and new techniques are being developed daily aiming to give more flexibility to individual operations. Here are some of the successful methods known and proven:

Small Swedish type gang mills are operating concurrently with standard mills. They very effectively take care of the growing percentage of small and second growth timber resulting from more progressive and more complete logging. Generally, three different methods are used in these gang mills. Firstly, live cutting of logs with fast edger and trimming facilities. This is successfully applied where small logs are used, yielding very little clear lumber. It is cheap and effective, but not advisable where many logs over 20" diameter have to be cut at the same time and where a limited and specified range of widths is to be produced. The second system has two or three gangs cutting tandem. One or two of them cutting cants for a short cant gang. Here the advantage is good control of widths and better recovery of clears. However, this method should only be used if facilities are available for very close diameter sorting in the log pond. The third method has a fast small band mill and carriage ahead of one or two cant gangs and thereby avoids the necessity of close diameter sorting. The second and third methods are, of necessity, more costly operations than the first.

These so called Swede mills of all types are growing in popularity in B. C. Coast sawmills and will play an increasingly important role in our industry. Most manufacturers, however, have the conventional type long timber mills, equipped to cut a good part of their production over the timber deck. There again a great many foresighted operators have made changes—quite apart from waste reducing schemes—to enable them to cut all types of logs and serve a great variety of markets.

They introduce into the flow of operation either a large cant gang or a modern band pony rig. The gang is advisable where selection of suitable logs for at least four-hour runs in the log pond is conveniently possible or where large accumulation of cants for four hours or more is possible within short and easy reach of the gang. The pony rig is preferable where the above is not practical or where the thicknesses required are manyfold and differ in the grade lengths, etc.

Resaws are hardly absent in any modern mill today, but a strong trend is evidenced towards use in the same mill of both horizontal resaw for maximum recovery from slabs and fast vertical resaws to handle all remanufacturing necessary.

Trimmer Trends

The one-man two-saw trimmer, which is standard equipment for planer mill operations, is finding its way into many sawmills. It can very successfully be used behind resaws, pony edgers, gangs or behind the grader on the green chain. Its capacity is no doubt much higher than any other comparable trimming system and it permits better grading of the lumber and provides great safety for the operator.

The pony edger is another machine which helps greatly in giving flexibility to an operation. I cannot remember a single instance of an operation having too much pony edger capacity, but I know of many situations caused by log quantity and order file where a mill foreman would give his eye teeth to have a second pony. Several attempts have also been made lately to divide automatically lumber from waste behind pony edgers. Some of them successful.

As usual, the most vital piece of machinery to take the trouble out of more complex lumber production is no machinery at all. It's a good long green chain. Those who always had one will know its blessings. Those who had to lengthen it lately will know the relief which you feel when mother let out the seams of your slacks in the spring after you gained ten pounds during the winter.

A great many changes are also being made in the finishing stages of the manufacture of lumber, planing, drying, shipping, etc., most of them to take care of the same growing problem we have to face; please our foresters and please our customers.

The main and fundamental machinery, however, is right in your sawmill. These are most of your limitations and your capacities.

There is much that can be done and yet one may easily come to a point where production costs become exorbitant or the log-out too complicated. There is one remedy for every specific operation and none universally applicable.

As an expertly landscaped garden will blend with the architecture of a building and will be most pleasing to the eye, so the sawmill layout, matching its specific conditions, will produce most effective results.

REVOLUTIONARY TRANSITION

With the average size of logs steadily declining as the old growth forests recede, a revolutionary transition in British Columbia sawmill operation is now well under way.

So far, forecasts that the size of sawmill units would diminish with the decline in log size have failed to materialize in the west coast province. True, many new small mills have been established, but a more conspicuous development has been the increasing size and diversification of the larger mills.

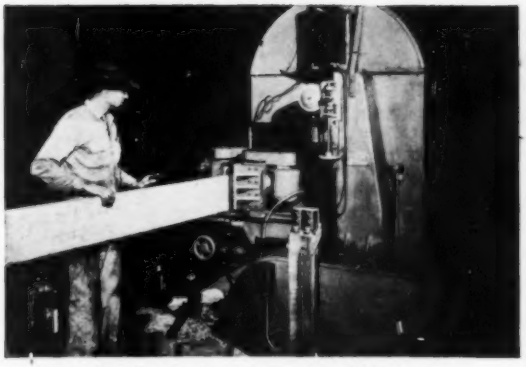
In 1950, there were 1,826 sawmills in operation throughout the province (nearly twice as many as in 1945). In the Vancouver district, including the important Vancouver Island and lower mainland areas, there were 426 mills, but of their total production of slightly more than 2,000,000,000 board feet it is significant that more than 1,500,000,000 board feet was contributed by fewer than 20 sawmills.

In other words, there are more sawmills than ever in British Columbia, yet the bulk of the lumber output continues to be from a comparatively few big mills. Actually, about 60 percent of the lumber produced in the Vancouver district originated in 5 percent of the mills.

Most of the new small mills have been built to meet a specialized requirement either in the nature of their raw material or in their market. But the big mills have followed a similar tendency towards specialization, too, by diversifying their operation, and in this they have had the advantage of adequate capital for the new machinery required, relatively low overhead and an abundance of technical skill as well as management experience. In addition, they have had a greater measure of control over marketing and transportation and, to an even more important degree in this era of keen competition, the big mills have had access to more timber.

(Concluded on Page 143)

How 6 Lumber Mills Modernized Electrically

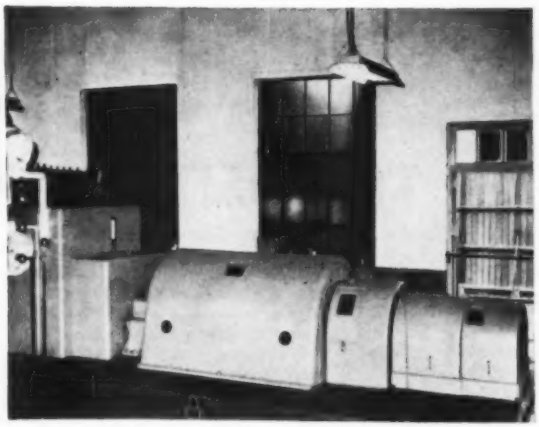


At Lumber Manufacturing Co., San Francisco, California, two Thy-mo-trol* drives replaced a bulky mechanical drive on this Turner vertical band resaw. The operator can vary the speed of wood being sawed from 8 feet per minute to 350 feet per minute. Installation of this drive resulted in more efficient machine operation and greater output. Write for Bulletin GEA-5334, "G-E Adjustable Speed Drives."

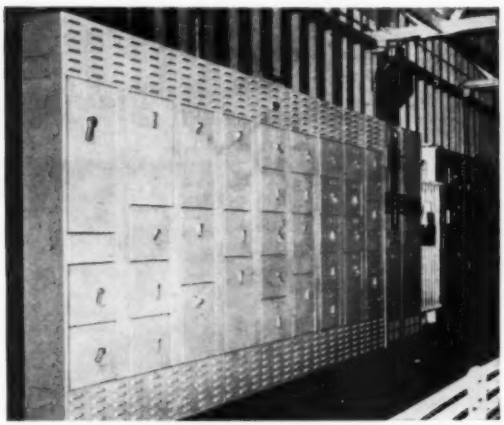
EFFICIENT G-E POWER SYSTEMS AND CO-ORDINATED DRIVES INCREASE MILL OUTPUT

What's *your* particular electrical need? Generating equipment that provides more power per fuel dollar? New distribution facilities that offer greater protection to your machines and personnel? Want to boost production and lower costs with modern electric drives?

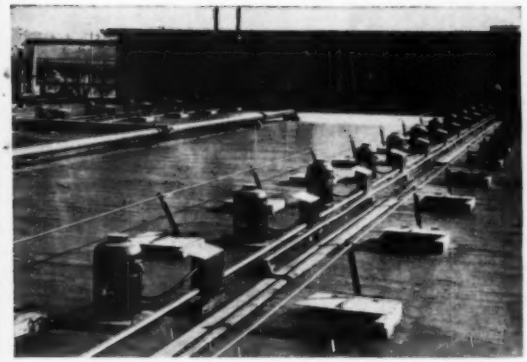
Whatever it is in electric equipment, General Electric can furnish it in just the type and size to meet your needs—whether it's only a small motor or control, or all the major electric equipment for your lumber mill.



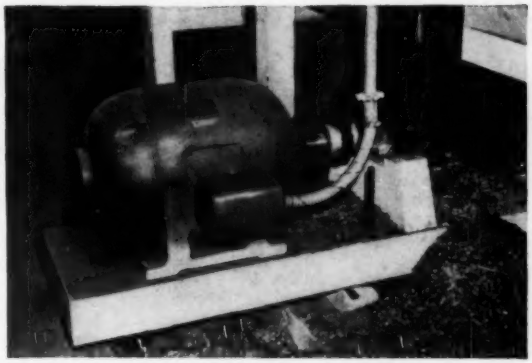
At Medford Corp., Medford, Oregon, this General Electric 2500-kw generator is driven by a G-E topping turbine exhausting to operate two 1000-kw generators, a battery of 18 dry kilns, steam equipment in the saw mill and machine shop, and for heating purposes throughout the plant. When the economics of your operation justify the production of power as a by-product of your process steam, G-E turbine-generators are the answer for continuous, low-cost operation. Write for Bulletin GEA-3277, "Turbine Generators."



At Potlatch Forests, Inc., Lewiston, Idaho, this lineup of motor control centers and unit substation illustrates the modern trend in lumber mills . . . centralized control of mill motors, and load center distribution which brings high voltage power close to centers of electric load to be stepped down and carried to motors by short feeders. Load center systems reduce hazard to equipment and personnel and give you less voltage drop and lower power losses, more efficient operation. Write for Bult. GEA-4979 and GEA-3592.



Union Lumber Co., Fort Bragg, California, recently installed 26 3-hp, 1800-rpm, vertical Tri-Clad* motors and control for driving 60-inch, 10-blade air circulating fans in their new dry kiln. The motors, mounted on kiln roof, drive the fans through specially designed shafts and gears to give about 400 feet per minute air velocity. G-E automatic timing and reversing switches provide for reversing the circulation at regular intervals for uniform drying.



At True-Cut Lumber Co., Sweet Home, Oregon, this G-E 50-hp, Tri-Clad* induction motor drives the two head saws. Tri-Clad construction for tough mill service gives you your biggest motor-dollar's worth. You get three-way extra motor protection against physical damage, electrical breakdown, and operating wear and tear. Write for Bulletin GEA-3580, "G-E Tri-Clad Induction Motors."

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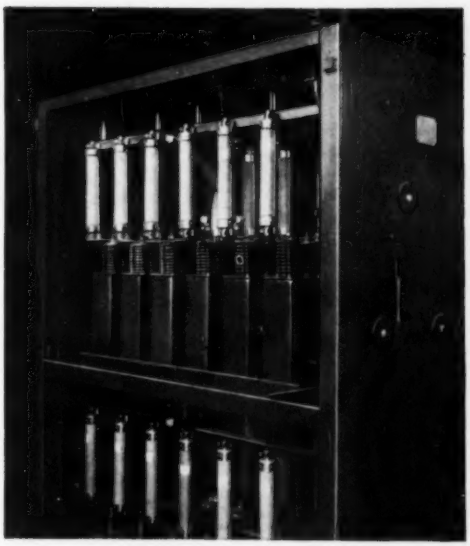

Pickering Lumber Corp., Standard, California, says about G-E capacitors: "We installed a 420-kvar bank of G-E Pyranol* capacitors in 1939, at a cost of $4400. They raised our power factor from 72 to 96 per cent and enabled us to avoid the penalty clause for operating below 80 per cent. In fact, we became eligible for a bonus. We find this installation has made an average *annual* saving in our power bill of $2630.43. Since 1939, this has amounted to $28,930!" Write for GEA-2742, "G-E Pyranol Capacitors."

*Registered trademark of General Electric Co.

CO-ORDINATED SYSTEMS FOR LUMBER MILLS

GENERAL ELECTRIC

050-19

LUMBERMEN POINT TO NEW TREND IN MACHINERY AND PRACTICES

BY
WALTER S. JOHNSON,
President
American Forest Products Corp.
San Francisco, California

1. The trend in log ponds is to do the bucking on the deck, and in log hauls and log deck it is to put on heavier chain and to use a chain rather than a drag saw for doing the bucking.

2. The trend in headrigs is of course to put in roller bearings. In carriages to get away from dog marks by utilizing only top dog devices that do not damage the face of the lumber.

3. In edgers the trend is toward roller bearings and shadow marking as a guide for the edgerman.

4. Trimmer saws in sawmills are pretty much standardized, but better trimmer saws that will more accurately square up the finished lumber are gradually becoming a necessity in order for better marketing.

5. On stacking and packaging the trend is toward handling in units and packaging with strapping.

6. More and more dry kilns seem to be the order of the day, particularly as the demand for lumber has eased off a bit.

7. As the cost of labor continues to mount more and more mechanized equipment is called for and this is principally electrically powered equipment, but a certain amount of air and hydraulic equipment is being developed particularly where it will replace steam.

8. There still seems to be a decided interest in hydraulic equipment for removing bark from logs, but so far the manufacturers of this equipment have not been able to set a price much under $100,000 and that is rather expensive for the average mill to consider. We still feel, in our own organization, that this hydraulic barking device will sooner or later be an important adjunct for improving sawmill practices.

BY
W. R. Warner, Manager
Southern Lumber Company
Warren, Arkansas

1. There is a trend toward the elimination of Log Ponds.

2. Use of cable chain and a live deck are developments at the head end of the mill.

3. There appears to be a trend toward the band saw as a means of breaking down logs.

4. On carriages we find more air dogs and electric set works.

5. The use of guide line lights and straight line lever set on edgers appears to be growing.

6. Smoother sawing and automatic features are coming into greater use on trimmers.

7. I note more steel construction and use of cable chain on conveyors.

8. The trend is toward greater use of carriers and lift trucks as means of handling lumber.

9. Automatic stacking is more common and the use of as large packages as possible.

10. The trend is toward the cross circulation dry kiln.

11. In planing mills we see higher speeds and straight line operations.

12. There is increased interest in air and hydraulic equipment and lifts of all kinds.

13. There appears to be a trend toward the use of sliver teeth band saws.

BY
PETE DeWEESE
A DeWeese Lumber Company
Philadelphia, Mississippi

1. We prefer the regular log chain haul-up with log washing equipment if possible. We like to use crowders to push the logs to the chain feeding the kickers.

2. In our particular case the circular head rig is to be preferred to bands. We prefer air operated carriages.

3. On the edger we find the use of the Edger Lite device very efficient.

4. We use the jump type trimmer in our mill although we like the overhead type. We trim from 11,000 to 12,500 feet per hour.

5. We find a cheap belt riding over roller conveyors provides good horizontal conveying facilities.

6. For handling we use Ross lift trucks and carriers with four foot packages at kilns and in the yard.

7. We like automatic stacking and packaging but use manual methods with constant supervision for proper lengths, stickers, etc. We use four packages per kiln truck and stack three high in the yard.

8. We are experimenting in seasoning green 2x4s dressed on edges and stacked edgewise. We yard our pine in four foot packages and provide plenty of circulation.

9. We feel it is the best practice to trim behind the planers wherever it is possible.

10. There is a trend toward use of air and hydraulic equipment. We prefer air on the carriage. We would like to see further development of hydraulic feeds.

11. We use hollow ground saws for trimming wherever possible.

12. Summarizing, we feel the following tend to provide cheaper and more efficient means of manufacturing the forest products: 1, Horizontal resaw for small logs; 2, Mechanized lumber handling; 3, Anti stains and quick stacking; 4, Sorting table behind kilns for finish especially; 5, Portable sawmill on wheels.

13. Above everything else, however, I want to stress the great importance of good employer-employee relationships. Along that line I think a good sound safety campaign among southern pine manufacturers would be as great a single factor as I can think of. For God's sake let's lower our accident incident rate.

BY
C. GILLSON, Superintendent
Hammond Lumber Company
Samoa, California

1. There is a trend toward the use of AC variable speed motors on head rigs.

2. More attention is being paid to the use of smooth cutting saws on the sawmill trimmers.

3. In the yards there appears to be a trend to provide more room so there will be better air circulation.

4. In the planing mill there has been a trend toward bundle trimming for bevel siding, the use of loading and unloading hoists and the installation of variable speed motors.

5. In our operations we have installed two tilting hoists operated hydraulically.

6. We are still experimenting with tooth spacing on saws as well as different gauge of saws. We think something worth while may come out of this research.

(Concluded on Page 124)

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Your trucks will carry *more* payload—and keep within legal weight limitations—when they're equipped with Timken-Detroit Axles! That's because Timken-Detroit's rectangular steel axle housing is the most rigid and yet the *lightest*—rated capacity for rated capacity—ever built! This would still hold true even if metals of lighter weight could be used, within practical space limitations. This rugged housing is hot-forged of high-carbon steel—putting dense, compacted steel into the corners for maximum resistance to vertical and horizontal bending. A heavy steel cover is welded in place to complete a rigid, one-piece structure. Wheel spindles are made from forgings of alloy steel* for maximum surface hardness at the wheel bearings and are electrically butt welded to the housing shell. Laboratory tests and field experience have proved this Timken-Detroit rectangular axle housing carries loads with much less deflection than conventional housings of the same rated load-carrying capacity. Whether you build, buy or sell trucks, you'll be wise to standardize on Timken-Detroit Axles and Brakes!

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The Timken-Detroit Axle Company, Detroit 32, Michigan

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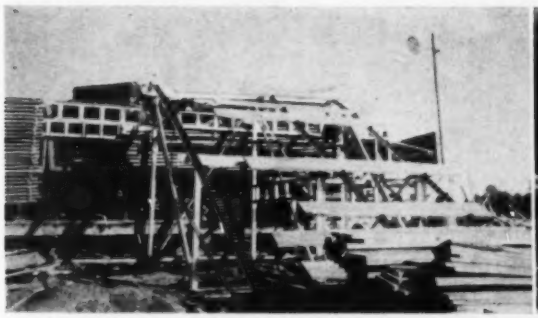
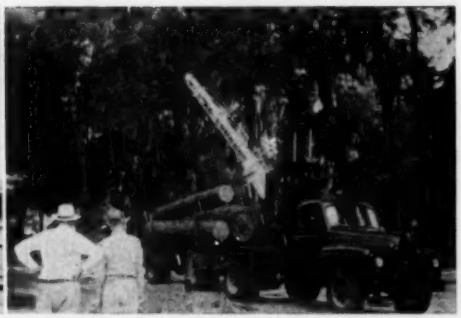
SOUTH MAKES PROGRESS IN REDUCING OPERATING COSTS



A Rex chain (Chain Belt Co.) pulls a typical southern operation assembled lumber stacker.



A Model H-3 Bucyrus-Erie Hydro-crane loads logs to a motor truck trailer on the operation of Jenks Harrill, Summerville, S. C.

Perhaps the greatest change in the southern pine and hardwood lumber producing region during the year passed has been the almost universal abandonment of over-time labor hours in production, and a rising ground swell of mechanical equipment substitution for man power.

This mechanical replacement, felt most in mill and yard but to a substantial degree in the woods, has been severely handicapped among the smaller mills through deferment of extensive defense lumber buying from the year closing to 1952. The curtailment of direct labor costs has also been accompanied by other moves toward the same objective.

All operators feel that overtime, under existing conditions, is a penalty and have been endeavoring in every way possible to eliminate this added burden.

With overtime being eliminated for all but a few key men in an organization, the employers are striving to overcome this lost production time by greater efficiency in handling.

Handling and Storage

The greatest improvements have been in "in-plant handling" and in storage. It is felt that handling devices offer the quickest way to reduced costs rather than through sawmill and planer mill improvement. Within this category may be found conveyor chain and equipment, machinery drives. In large and medium sized mills, tilting hoists and automatic or semi-automatic stacking and unstacking equipment is being installed. These not only reduce direct labor costs, but mechanical performance of repetitive tasks especially in stacking yields an improvement in grade yield through uniformity.

In the less elaborate plants labor utilization in stacking for air or kiln drying is being reduced through installation of locally made chain and electric motor driven arrangements for lifting the lumber pieces to the crew, and the stacking lift used an automobile service station type. Chain manufacturers are called upon for conveyance of loads from lifts or straddle truck to stacker. Conveyor chain and tilting hoist arrangements for reducing labor at the planing machine are being installed in increasing numbers.

The fork lift and straddle trucks have achieved full acceptance in the southern industry. During 1951, larger operators were making changes to use larger units of these types. In some mills, industrial overhead cranes are coming in. Among small operators where two types of carriers are not justified economically, the fork lift is being acquired to both stack and carry.

More Dry-Kilning

There has been no marked overall tendency toward remanufacture of lumber into consumer items, particularly among the larger mills already fully equipped along those lines, but more lumber is being remanufactured or finished before shipment due largely to savings effected in freight rates which have been increasing. Installment of new automatic dry kilns and modernization of older units has continued high in the manufacturers' interest chiefly as another shipping weight reduction operation, a sure-fire way to lower freight charges.

Where cheap natural gas is available, there is a trend toward its use as a fuel rather than mill waste and conversion of the latter to a by-product by its sale on the market. Further economies in this direction are being achieved by more efficient boiler installations. Here, high labor costs of hand firing are being alleviated by automatic stoking in conjunction with modern fuel houses and efficient chain conveying and feeding of wood waste fuel. Sawdust is being sold.

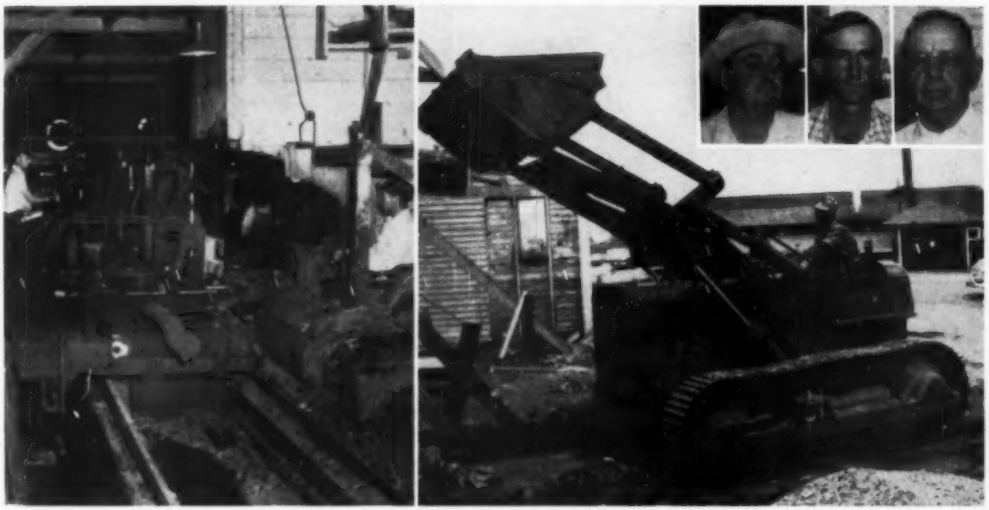
Already underway is the strong movement toward log debarking, with subsequent chipping of slabs and edgings for sale to the paper mills. In general, the mills have been striving toward the highest possible market yield from the log.

Great Labor Efficiency

While the general efficiency of labor fluctuates with demand and the ability "to go on relief" the long term trend under minimum wage limits has been toward the higher standards. There is a marked improvementin quality of average labor employed in the southern lumber industry for the simple reason that inferior labor must be paid the same return as the good worker. The effect of this has been closer scrutiny of employes, and sluffing off of the dullard in favor of the intelligent worker. The long term application of this principle is becoming manifest in evolving of crews capable of working to advantage with labor saving equipment.

(Concluded on Page 119)

RECONSTRUCTS PLANT TO OBTAIN GREATER EFFICIENCY AT LOWER COST



Left: When this Prescott carriage was air-equipped it reduced the riding crew from three men to one man. Atkins and Simonds sliver tooth saws are used. Right: This Allis Chalmers HD-5 has proven its worth in handling materials about the grounds. Inset—(left to right): N. A. Hood, sawmill foreman; I. Ragland, assistant to mill manager; C. T. McDonald, mill manager.

Reconstruction of the W. E. Belcher Lumber Co., Centreville, Ala., currently in progress, will provide that old-line operation with an industrial plant having all modern features. In addition to steps effectively taken in the sawmill to improve production while eliminating waste labor, the company's program includes a new green drop sorter and trimmer, modernized Moore dry kilns, a dry sorter, a new steam plant and generator, an elevated water tank in connection with a sprinkler system, a new plywood plant, machine shop and garage.

The power plant alone involves an $100,000 investment. It includes a modern Babcock & Wilcox boiler and a 1030 KW Allis Chalmers Mfg. Co. generator, the latter driven by a Nordberg Mfg. Co. steam engine. The sprinkler system is already in the sawmill and veneer plant.

Veneer for the plywood is made in a seperate structure, its equipment including a 66-inch Jackson Industries hydraulically controlled lathe, one 50-inch Sheridan clipper, one 43-inch H. B. Smith sander, a Wysons & Niles belt sander, two Capital clippers, a 12-section Coe Manufacturing Co. drier, and Diehl Machine Works jointer, tapeless splicer, and taping machine.

The plywood plant produces furniture stock in three to nine ply in thicknesses ranging from 3/20ths inch to 3/4ths inch. Its equipment includes a 3x6 foot Francis cold press, Black glue spreader, Chattanooga gang rip saw, and Beech cut-off saw.

Logs brought to the mill are handled by an 175-foot Star unloader. Logs suitable for veneer are set aside, cut to desired length, and moved to that unit. About 30 percent of logs are hardwood. Savings over old methods have been effected from the log deck on. Here an electric motor driven deck chain with push button control made up in the mill shop from parts that were "around" cost $400 and has paid for itself many times over by reducing the work crew from three men down to one man.

The headrig is double sided with a Wheland band and Prescott carriage on the large log side. The car-

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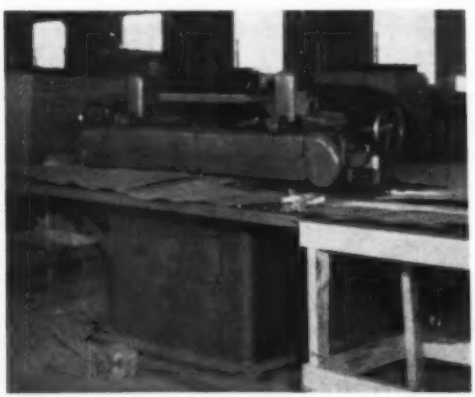
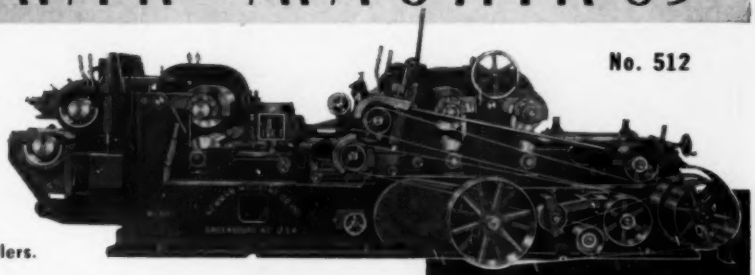


This G. M. Diehl Machine Works taping machine is part of the plywood plant equipment.

NEWMAN MACHINES

Newman

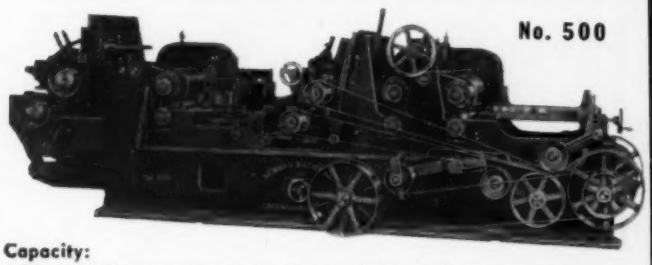
No. 512



Capacity: 16" and 24" wide, 8" thick.
Speeds up to 325 feet per minute.
8" dia. cutting circle.
Six 12" dia. feed rolls.
Single and double profilers.

BALL and ROLLER BEARING PLANERS AND MATCHERS

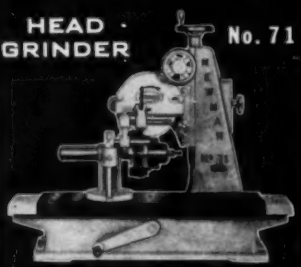
No. 500



Capacity:
14" and 24" wide, 6" thick. Speeds 40 to 200 feet per minute. 7" cutting circle. Six alloy steel feed rolls. High carbon special alloy steel cylinders. Single or double profilers.

The ball bearing NEWMAN 71 (shown below) will grind all sizes of cutter heads. Table is 33" long by 9" wide with horizontal travel of 25" and is heavily ribbed to maintain accuracy over entire travel. Maximum cutter head swing is 11".

HEAD GRINDER No. 71



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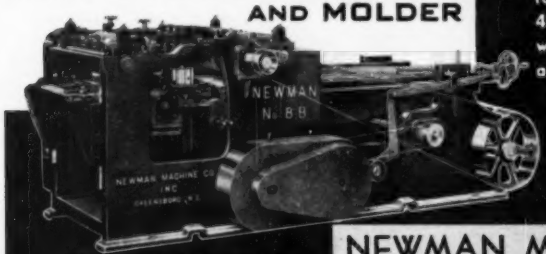
Ball and Roller Bearings

ALL NEWMAN cylinders or heads are DYNETRICALLY BALANCED insuring an accurate and superbly finished product.

No. 55 AUTOMATIC PINEAPPLE FEED TABLE

The NEWMAN 55 feeds stock automatically to high speed planers and matchers up to 450 lineal feet per minute. Capacity: 30" wide, 8" thick. All adjustments and controls are centrally and conveniently located.

No. 8-B PLANER, MATCHER AND MOLDER



Unsurpassed for work in small and medium mills

The NEWMAN 8-B planes 22" wide and 8" thick, joints 4" thick and will match 14" wide. 6" diameter feed rolls. Speeds of 30, 50 and 75 feet per minute.

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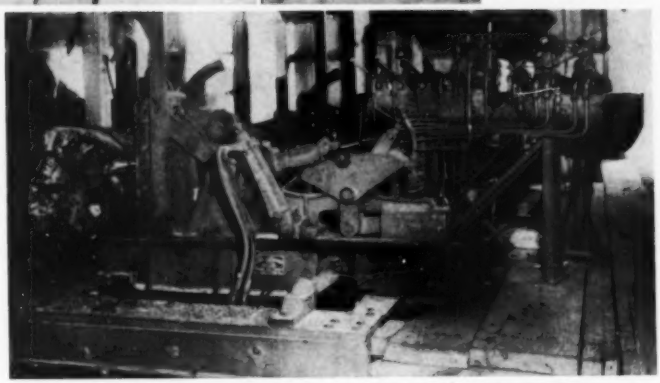
NEWMAN MACHINE COMPANY, INC.
GREENSBORO, NORTH CAROLINA, U.S.A.

NEW MILL REPLACES OLD PLANT

Upper left: General view of the new mill of Tutt Lumber Co., Nanafalia, Ala. Right: J. W. Tutt, president, Tutt Lumber Co. Lower left: J. M. Tourne, mill superintendent; V. B. Daniel, general superintendent; C. C. Harrington, mill foreman and head sawyer.



The Aerequip controlled carriage for the Wheland double band installation.

Replacement of an old installation with a new Wheland double band mill has resulted in lessening of operating time for the volume of lumber produced at Tutt Lumber Co., Nanafalia, Ala., of which J. W. Tutt is president. In process of replacing the old rig, the company built an entirely new mill.

The Tutt Lumber Company has been operating since 1932, owns 20,000 acres of selectively cut timber land, and cuts inch stock, mostly 1x6 and 1x8 in boards and strips, finish, flat grain flooring, and drop siding. Logging is all contracted but the company has a fleet of seven International Harvester and Ford trucks that bring logs to the mill once they have been brought out of the woods to the edge of a good road. Loads range from 2500 to 3000 feet but sometimes up to 3800 feet if hauling conditions are favorable.

About 25 percent of logs received are hardwood and these are sent through the mill with the pine but stock is drawn off the green chain and sent to an air-drying yard. The higher grades of hardwood are sold rough; the lower grades are surfaced before shipment.

The original mill had a circular rig cutting 35-M feet in a day and operating a 50-hour week. The mill's long side, a 6-foot band with 3-man carriage, was in first, producing 60-M feet per day with two shifts. As soon as the 54-inch band short side completely equipped with Aeroquip controlled one-man carriage was added to the operation it was dropped to a single shift. The long side carriage has a detachable trailer for extra long logs. The head rig is backed with a Wheland band resaw.

The saws are maintained in top cutting condition in a large, well illuminated filing room in which Covel-Hanchett equipment is used. Two sharpeners are new; one, rebuilt.

Structural design and arrangement of facilities makes it possible to load green lumber to dry kiln cars by passing it downward, minimizing labor. The older type dry kilns were replaced with modern Moore automatically controlled cross-circulation units. Dry kiln capacity is a million feet per month.

V. B. Daniel is general superintendent for the company; J. M. Tourne is sawmill superintendent; and, C. C. Harrington, mill foreman and head sawyer.

Turns Down Pleas

British Columbia's minister of lands and forests, Hon. E. T. Kenney, has announced that the government does not intend to yield to pleas of various organizations within the industry and create an independent commission for the control and administration of the forest resources. This is about the only recommendation contained in the Sloan report of several years ago, which has not been implemented.

Forest Research Chief

Lewis R. Grosenbaugh has been named chief, forest management research division, Southern Forest Experiment Station. He succeeds Philip R. Wheeler, who became forest economics division chief. William A. Duerr, former economics chief, was transferred to special assignment work in Washington, D.C.

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WIRE ROPE
PERFORMS BETTER
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SAFER TO USE
LASTS LONGER
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In Business for Your Safety
ALSO MAKERS OF THE COMPLETE LINE OF
Registered
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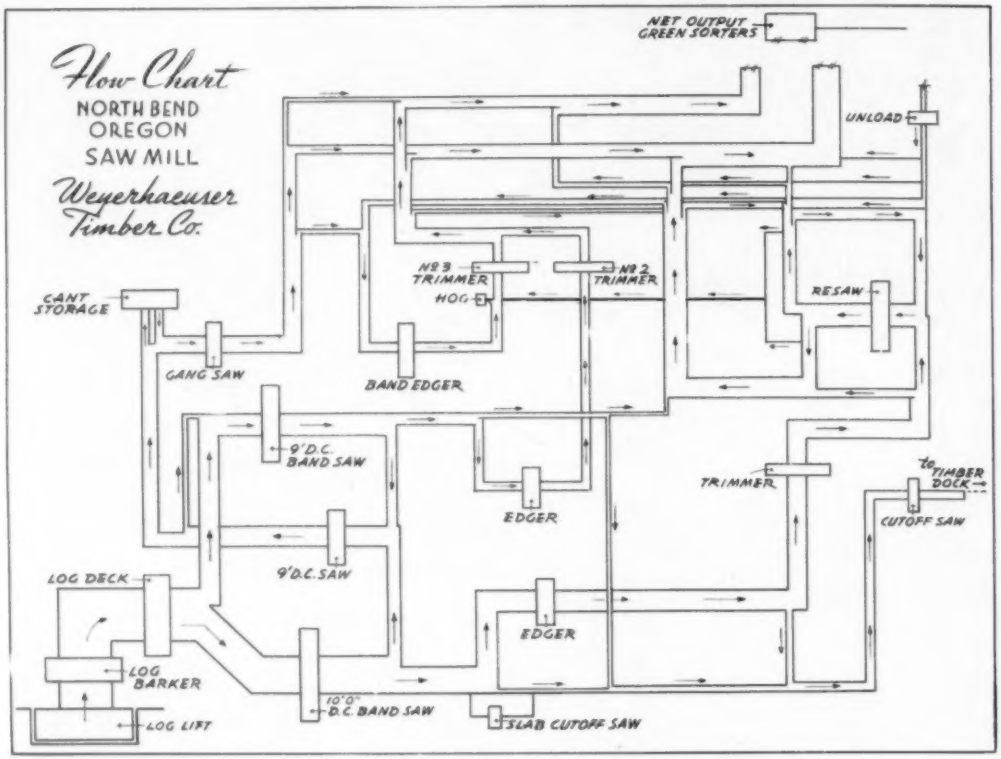
WEYERHAEUSER'S NEW SAWMILL

CONTAINS UNUSUAL ENGINEERING AND MECHANICAL FEATURES



The most recent lumber manufacturing plant of Weyerhaeuser Timber Co. to get into production is located at North Bend, Ore. and designated as the organization's Coos Bay branch.

It was considered expedient to build a mill in this area near the company's 200,000-acre Millecoma Forest timberlands. A considerable part of this timber is mature and should be harvested before becoming decadent. Last summer the new mill began manufacturing lumber from this timber—some of which dates back to 1907 in Weyerhaeuser ownership.

The Coos Bay plant is a cargo mill, about 80% of the lumber output leaving the area via ocean-going ships which take on lumber cargo at the plantsite dock. Only a few dry kilns are operated at the plant, because most of the lumber produced goes into industrial uses.

Each log arriving at this mill is completely utilized. Clean wood not suitable as lumber is converted to pulp chips at rate of 125 units per day and shipped 130 miles by rail to the Weyerhaeuser plant at Springfield for manufacture into paper. Wood and bark not suitable for chips are utilized as fuel to provide steam and electric power to operate the plant. Excess electricity is sold to a local power company for public distribution.

A New Type of Production Unit

The Coos Bay millsite, covering area of about 40 acres, is so small that the entire plantsite would fit into Springfield plant's mill pond and still be surrounded by water. Consequently the company engineers had to design an entirely new type of production unit. To get all the needed facilities into the area and still obtain desired performance was the engineering problem.

Out of this adversity, and the company's continuous search for greater utility in both processes and products, came a plant with several features unique to the lumber industry—a plant that is said to be one of the most efficient in the industry.

Plant planning and designing is largely attributed to the Weyerhaeuser Timber Co. Engineering Department, Tacoma, Wash., the key personnel of which includes Chief Engineer John S. Abel, Mill Consultant Wm. A. Hyman, Chief Design Engineer Conant Dodge, and Sawmill Engineer Ed. A. Vohs.

The sawmill, rated at 300,000 board feet per day, is remarkably well lighted, safety painted in light pastel colors, and free of visual obstructions. The layout is such that stock is almost continuously moving. There are no large storage areas in the mill, the storage provided is practically "live storage" to even out

Monarch Labor-Saving "Specials"

for Your Requirements

Monarch Air-Electric Sawmill Carriages

Custom built to meet specifications of any size mill whether cutting 50,000 or 500,000 feet per day.

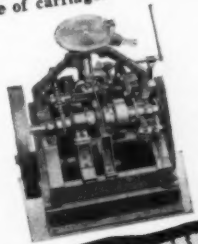
The setter performs all carriage operations with ease-SETTING, DOGGING and TAPERING Ruggedly ALL-STEEL constructed on ROLLER BEARING AXLES and designed to withstand rough treatment from large logs. Modern Monarch CARRIAGES are furnished with 2, 3 or 4 blocks with openings from 48 to 84 inches.

Monarch-Western Band Mills

No material has been spared to make all Monarch-Western HEAVY DUTY BAND MILLS of simple rugged design. All sizes from 5 to 10 foot have the SUPER-SENSITIVE KNIFE-EDGE STRAINING DEVICE, UNUSUALLY HEAVY ARBORS, ROLLER BEARINGS and RIGID FABRICATED STEEL COLUMNS and BASES. Band Mills weigh from 14 to 40 thousand pounds

ANDRUS SET WORKS

Setting the dial lever and shifting the shift lever accurately sets the log to a predetermined dimension indicated on the dial. Cannot coast or overthrow. Automatic brake prevents knees from being forced back by the log. Can be applied to any type or make of carriage.



Monarch-Western Resaw

New design with controls simplified for SUPER-RIGID smooth performance. Resaws in 6 & 7 foot sizes-weigh 25 to 37 thousand pounds. ALL-STEEL EXTRA HEAVY ROLLER BEARING, with IMPROVED SET WORKS.

Increase Production 25% to 40%

Send for information and prices concerning your requirements.

Monarch Forge & Machine Works

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the flow of materials. The plant is equipped throughout with Viking automatic sprinklers.

Unusual features incorporated into the plant include the following:

LOG WELL LIFT—This method of transporting logs from pond area to mill operations level has been used here with quite a saving over various other methods. Of course log wells have been common to the industry for many years, but this one has features that are strictly unique. The well is open at both ends to facilitate entry of logs from either end, thus making it possible to take advantage of water currents on either rising or falling tides. To minimize corrosive action of the salt water, Esco manganese steel chain is used for hoisting the logs to live deck leading to hydraulic barker—a vertical lift of about 45 feet. Power is applied to both ends of these chains by electric driven Sumner hoists, one located above the well and the other beneath the deck. Logs are lifted at rate of 33 f.p.m. and the chains return at 66 f.p.m.

LOG BARKER—A Sumner 42 t. Bellingham type hydraulic log barker, located in deckway between log well and slip taking logs into the mill, removes bark from all logs processed at this plant. Even the buckskin logs are "barked" to free them of dirt and rocks that may be clinging to, or imbedded in, the surface.

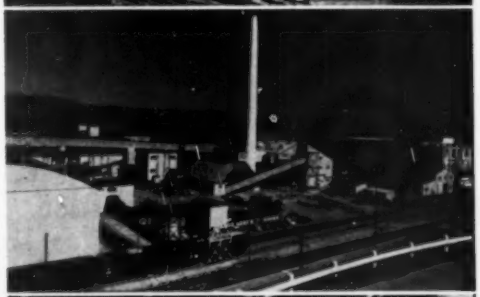
This barker applies water to the logs at high pressure from oscillating nozzles which were developed by engineering department of the company's Longview branch. The oscillating jets apply water to the logs in rapid sweeps of about 30 in. in length. The men concerned with this phase of the operation say the oscillating nozzles remove bark much more rapidly than stationary nozzles which were developed by used.

An 8-stage 900 g.p.m. 1400 p.s.i. Bingham pump, direct connected to 900 h.p. Westinghouse motor, delivers the high-pressure water to the barker.

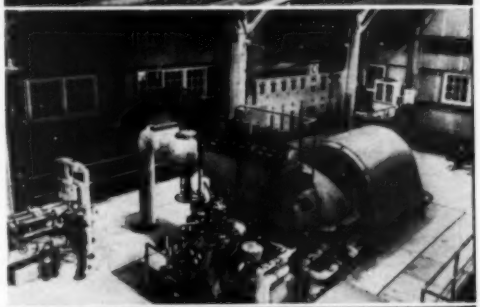
STEEL LOG DECK—The front end of sawmill, down to and including area of both headrigs and the carriage tracks, is of steel construction to assure rigidity and straight-line sawing.

POWER SAW SHIFTING ON EDGERS—A 7-saw 14 x 72 in. Pacific Coast Sumner edger operates on the long-log side and a 5-saw 8 x 55 in. Eastern type Sumner edger on the short side. The big edger has air setworks, developed by the

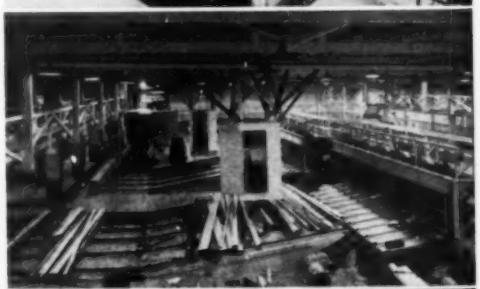
Looking across log pond from southern end of plant-site. At right is double-entry log well discharging logs to hydraulic barker, sawmill in center and power house at left.



From left to right, back end of sorting shed, sawmill, power plant, machine shop, office, Mt. States power plant. In foreground, loading pulp chips into chip cars at rate of 125 units per day for shipping 130 miles to Weyerhaeuser paper mill at Springfield.



Generating room of power plant, General Electric-Curtis 5000 k.w. turbogenerator in center, air ejector at left, Westinghouse master control panel and boiler-water testing cabinet in far corner. At top is trackway of 15-ton Ederer bridge crane.



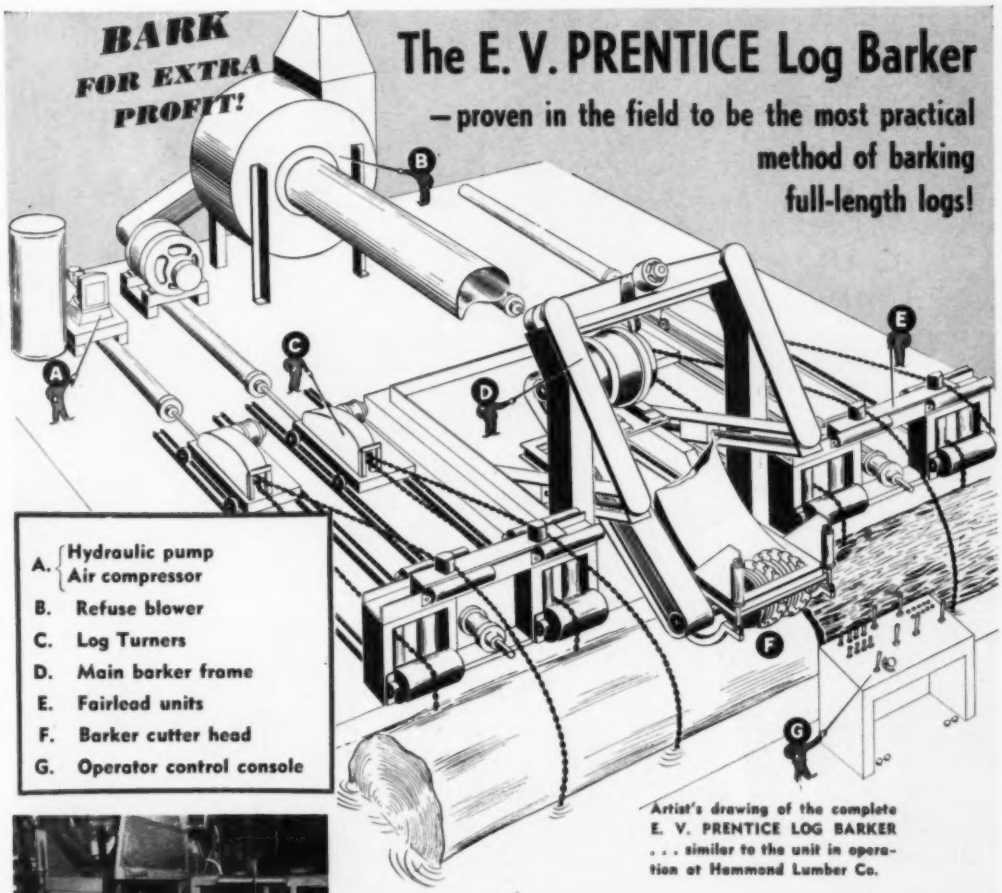
Remanufacturing section of sawmill. At right are two 24 ft. Prescott Iron Works trimmers, a 6 ft. Filer & Stowell horizontal bond edger to left of trimmers, and Sumner 20 x 48 in. cant gang barely visible over edger.

Green sorting shed with double-deck sorting of green lumber. Down center of the shed is the 2 in. green chain, flanked on each side by its pulling stations. One-inch green chain and pulling stations are on lower level, only the pulling section of the 1 in. showing (at left). Completed lumber packages are removed by 10-ton, 106 ft. Star bridge crane shown at far end of shed.

BARK FOR EXTRA PROFIT!

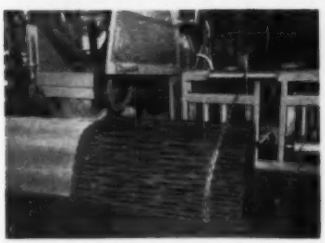
The E. V. PRENTICE Log Barker

—proven in the field to be the most practical method of barking full-length logs!

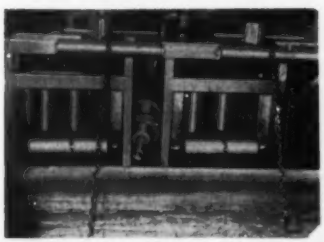


A. Hydraulic pump / Air compressor
B. Refuse blower
C. Log Turners
D. Main barker frame
E. Fairlead units
F. Barker cutter head
G. Operator control console

Artist's drawing of the complete E. V. PRENTICE LOG BARKER . . . similar to the unit in operation at Hammond Lumber Co.



Close-up of the Prentice Barker showing the cutter head in action. This unit can be raised or lowered and tilted to fit the taper and size of the log.



The cutter head is finishing a large log, which has passed through the infeed chains and is being handled by the outfeed turning chains. Note how they wrap and hold the log firmly.

Hammond Lumber Co., Samoa, California, has put its FIRST Prentice Log Barker through the most rugged tests during the past two years. The fact that this well-known lumber firm has ordered a SECOND Prentice Barker proves how satisfactorily the unit has performed.

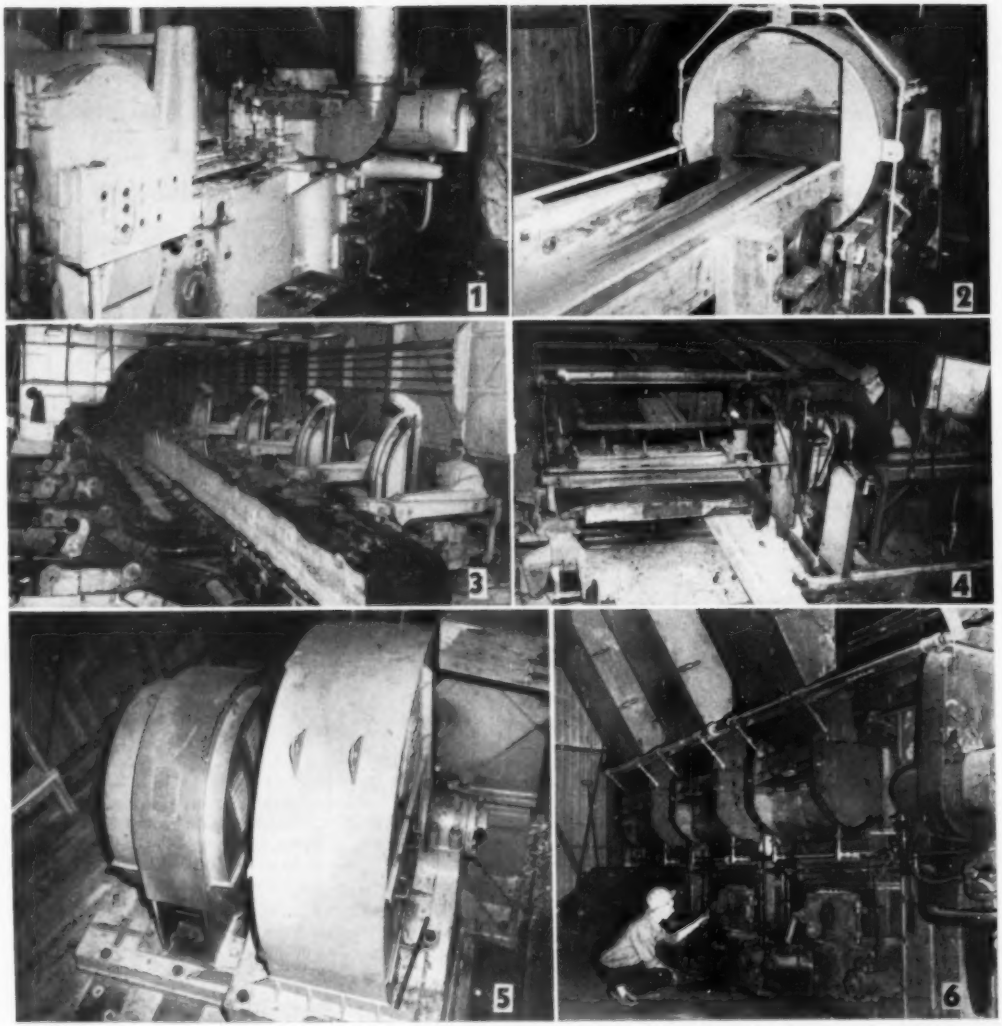
Here are some of the outstanding advantages of the E. V. PRENTICE BARKER:

★ **Initial Cost** — within the reach of the average mill
★ **Cleaner Mill** ★ **Sharp Saws**
★ **Greater Log Recovery** ★ **Saleable Slabs**
★ **INCREASED PRODUCTION!**

The E. V. Prentice Barker is one of the newest developments that brings new profits to sawmills, plywood plants, pulp mills, etc. The barker can be used on any type of timber, from 12" diameter to 8' (or more if required) and over 14-ft. lengths. It requires less power since logs are handled in the water. These are just a few of the reasons why you should investigate the Prentice Log Barker!

DROP A CARD TO US TODAY — YOU'LL BE GLAD YOU DID.

E. V. PRENTICE CO.
Veneer and Plywood Machinery
[illegible] PORTLAND 13, OREGON



1—Finishing one-inch lumber at 500 l.f.p.m. in planing mill with 6-16A Stetson-Ross machine equipped with Andersen Blowpipe & Mfg. Co. blower system. 2—Spraying finished green lumber with Lignasan as it comes from the planer. Finished green lumber is Lignasan treated as it leaves both planers and the timber sizer. 3—Filer & Stowell 10 ft. bandmill, Sumner 4 screw-block carriage for logs up to 44 ft long. This side has Filer & Stowell 15 x 17 in. steam twin-engine feed and Prescott Co., Menominee, Wis., electric setworks. 4—Sumner 14 x 72 in. Pacific Coast 7-saw edger, equipped with air-powered saw shifter, operating behind the larger headrig. Note elevated position of operator. This edger has reversible variable-speed Sumner steam feedworks. 5—One of two 72 in. 8-knife Sumner chippers powered by 300 h.p. E.M. 6—Spreader stokers, grate dumps and stoker drive of number 2 Combustion Engineering 70,000 lb. per hour boiler. There are two of these C.E. units in the boiler plant.

Tacoma engineering department, and is fully equipped with mechanical handling facilities so that the operator never need touch or handle stock coming to the edger. Hence the edgerman's operating position has been moved from mill-floor level in front of the machine to a control stand located above and to the infeed side of the edger. This places the edgerman in a position where he commands full view of operations all the way from the big headrig to No. 1 trimmer, timber dock and cut-off saws, including that hard-to-see area immediately behind the edger. He also has opportunity from this elevated position to view and inspect the entire length of cants approaching the edger. A reversible, variable-speed Sumner steam feed is used on this machine, the saws powered by 300 h.p. E.M. motor.

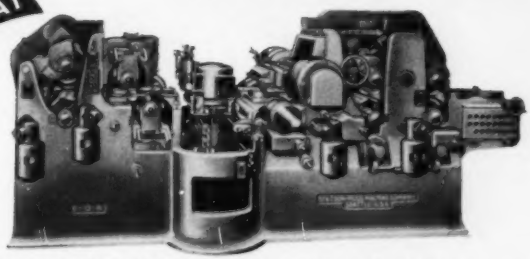
Saws on the Eastern type edger are powered by 150 h.p. G.E. motor, the feed by Louis Allis Ajusto-Spede drive, and the saws positioned by Britt electric saw shifter designed by Geo. Britt, chief engineer at Weyerhaeuser Klamath Falls branch, and manufactured under his supervision by Klamath Iron Works.

Plans call for installation of shadow-line guides on both edgers.

SEPARATION BEHIND BIG EDGER—The button control station operator controls the segregation of edged stock, routing timbers to timber dock (after processing at cut-off

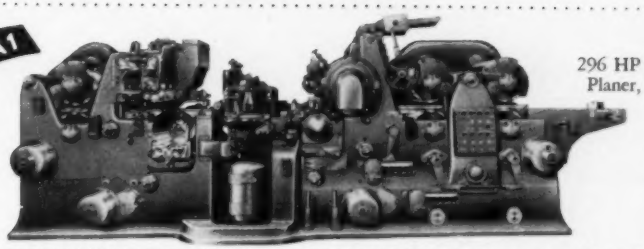
Whether You Plane 40M or 300M Board Feet Per Day You Can Reduce Costs With Stetson-Ross

6-10-A1



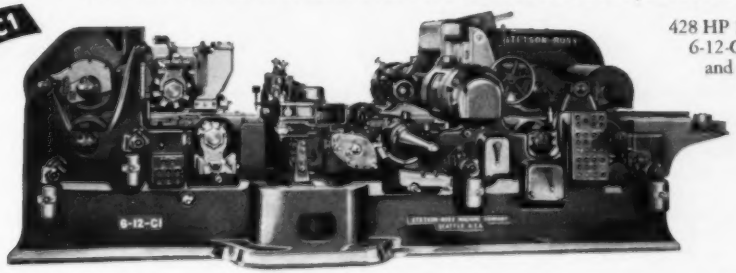
180 HP 8 or 10-knife model 6-10-A1 Planer, Matcher, and Double Profiler (E. E. Splitter) for feed speeds up to 350 feet per minute, and rated daily output per shift of 40M to 100M board feet.

6-12-A1



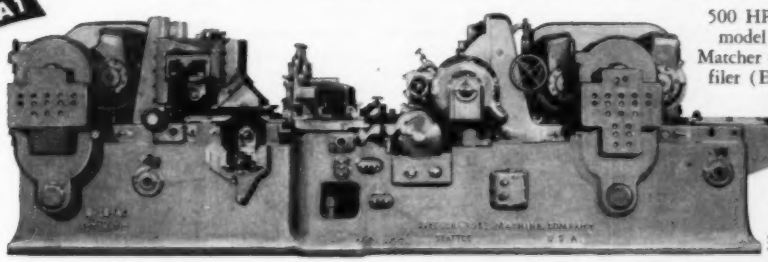
296 HP 10 or 12-knife model 6-12-A1 Planer, Matcher, and Double Profiler (E. E. Splitter) for feed speeds up to 480 feet per minute, and rated daily output per shift of 60M to 150M board feet.

6-12-C1



428 HP 14 or 16-knife model 6-12-C1 Planer, Matcher, and Double Profiler (E. E. Splitter) for feed speeds up to 750 feet per minute, and rated daily output per shift of 70M to 175M board feet.

6-16-A1



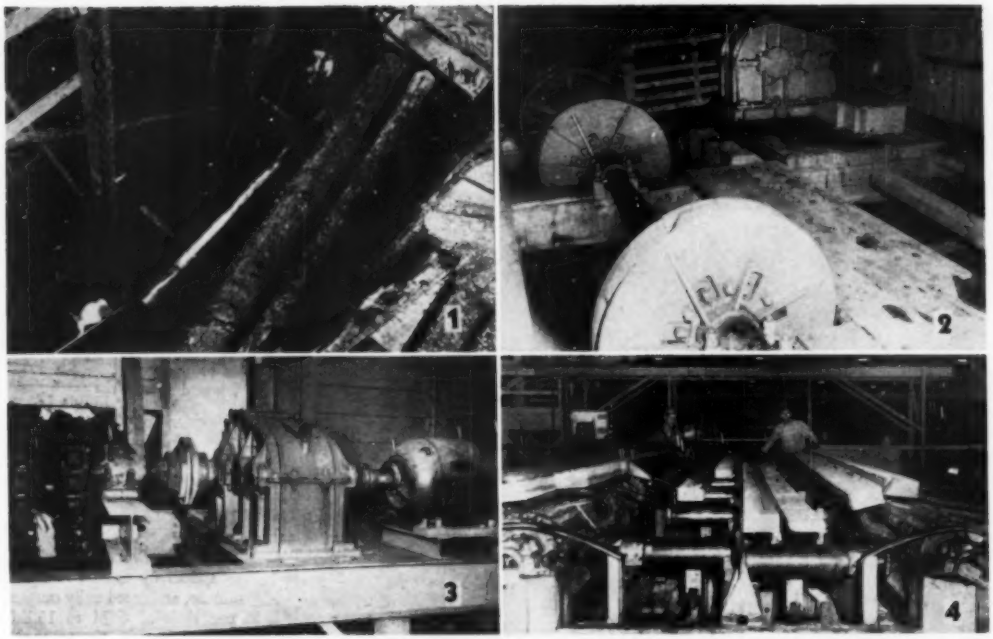
500 HP 16 or 20-knife model 6-16-A1 Planer, Matcher and Double Profiler (E. E. Splitter) for feed speeds up to 1000 feet per minute, and rated daily output per shift to 300M board feet.

Reduce Costs with Stetson-Ross

You are invited to write for the free 8-page illustrated booklet entitled "The ABC's of Planing Mill Layout."

STETSON-ROSS MACHINE COMPANY
SEATTLE 4, WASHINGTON

Export Division, 301 Clay Street, San Francisco 11, California



1—Log well, open at each end to take advantage of tidal currents in moving logs into well, using Esco manganese steel 1½ x 7 in. round-link hoist chains for the 45 ft. lift from water to live deck ahead of hydraulic barker. 2—One of two logwell drives for vertically lifting logs 45 ft. from pond to live deck ahead of hydraulic barker. The drive shown, is powered by G.E. motor through Western Gear Works herringbone reducer. 3—Drive end of chain transporting barked dogs from hydraulic barker to mill deck. The Link-Belt dual chain at left is powered by 30 h.p. G.E. motor (right) connecting with Western Gear Works herringbone reducer through Falk flexible coupling. 4—Filer & Stowell 8 ft. split-bed horizontal band resaw, stock at left coming from 42 ft. trimmer, at right from remanufacturing end. A 200 h.p. motor powers this resaw.

saw) and rest of the stock to No. 1 trimmer.

DOUBLE-DECK GREEN SORTING CHAIN—Lumber from remanufacturing end of sawmill moves on American Rubber Co. belts in two segregations to sorting shed, there discharging onto double-deck green chains—2-in. and thicker to top deck and 1-in. to bottom deck. The 2-in. deck sets in center of sorting shed and extends full length of the building, flanked on each side by pulling stations. The 1-in. green chain extends full length of the shed and is directly beneath one of the 2-in. loading platforms. At end of this 1-in. green chain, remaining stock transfers by belt to second section, located under the other 2-in. loading platform, continuing back down the shed in opposite direction. Loading stations for 1-in. lumber occupy the space between green chains and sides of the shed.

Sorted lumber in carrier-size packages are removed from the loading stations by a 10-ton 106 ft. Star Iron & Steel Co. bridge crane operating full length of the sorting shed. The packages are taken to unit transfer rolls leading from the shed to outside craneway or are lowered into carrier well to road level where they are picked up for outside transport by Gerlinger carrier.

POWER STATION—Two 70,000 lb. per hour Sterling type Combustion Engineering boilers of 600 p.s.i. design are fired by CE stoker spreaders which inject the hog fuel into combustion chamber of boilers for burning. Approximately 70% of the fuel burns in suspension. The last pass of boiler is fitted with cinder collector for reburning cinders. Fuel chutes leading to the boilers have Link-Belt screw feeders powered by Ajusto-Spede drives and controlled by Bailey Meter Co. combustion board for feeding the fuel automatically. A 250 ft. reinforced concrete chimney, with dampers controlled by combustion chamber pressure via Bailey jacks, serves the boilers.

POWER DISTRIBUTION SYSTEM—Electric power generated at 4160 volts by a 5000 k.w. General Electric-Curtis turbogenerator is distributed at this voltage to load centers at various points throughout the plant and there converted to 480 volts for all motors except the barker pump motor which operates at full voltage of the system. Modern metal-enclosed distribution panels and motor control centers are used throughout the system.

Key Men

Arthur O. Karlen, formerly assistant manager of the Longview branch, is branch manager of the new Coos Bay operations. Key personnel on his management team includes the following: Production Superintendent John W. Snyder, Office Manager Jim Opland, Purchasing Agent Dudley Fosjord, Personnel Manager Wilfred Jordan, Sales Manager W. T. Furer, Sawmill Foreman Charles Eslick, Assistant Sawmill Foreman Wm. Sims, Planing Mill Foreman L. M. Fugitt, Shipping Foreman R. W. Maltsberger, Head Filer Roy Drury, Chief Engineer Lyle Warren, Construction Foreman Jess Hageman, Chief Electrician Leon Godard, Machine Shop Foreman Tom Phillips, Power House Chief Robert Lahey, Utility Foreman E. R. Mann.

Lumber manufacturing machinery and equipment in the sawmill includes: 1 Filer & Stowell 10 ft. double-cut band headrig v-belt driven by 400 h.p. E.M. motor, 42 ft. Sumner 4-block 84 in. opening carriage with Prescott Co. (Menominee, Wis.) electric setworks;

(Concluded on Page 115)

YOUR LOG LOADS ROLL UP **MORE PROFITS** ON

Firestone TIRES

HAULING big loads and getting them out over the haul road at a profit calls for extra tough tires with extra pulling power.

Firestone tires deliver more logs at lower cost because they are built to give extra traction, extra tread mileage, and longer body life on the toughest jobs. Firestone tires have traction treads that are extra deep, extra tough and cut-resistant. The rugged Gum-Dipped rayon cord bodies have four sturdy impact plies for added protection. The tough, double-thick sidewalls are built to stand up under exposure to cuts, rubs, and snags.

You can count on Firestone Tires to stand up longer on the job and cut your cost per mile.

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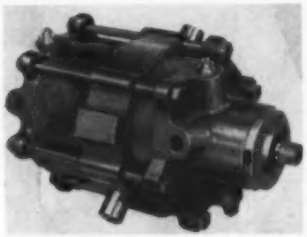
TRENDS IN SAWMILL DRIVES AND CONVEYORS

Air and Hydraulic Cylinders



Hannifin cut type pneumatic cylinder.

A NEW name is cropping up among equipment manufacturers and sawmill engineers—that is the name of the Hannifin Corporation of Chicago, manufacturers of air and hydraulic equipment. Hannifin is represented in Washington and Oregon by The Jack Ogle Co. of Seattle. He indicates that Hannifin cylinders are now finding use on sawmill carriages, electronic edge gluing machines, and in the plywood field Hannifin hydraulic cylinders are now installed on Ederer's new lathe charging crane.

According to Jack Ogle the Hannifin organization was the first to develop and to offer to industry a complete standardized line of air cylinders in a practical range of sizes. One outstanding achievement by Hannifin has been the perfection of the Hannifin Series "R" air cylinder featuring an entirely new principle in piston design. The exclusive construction of these cylinders permits adjusting the piston packing externally.

Hydraulic Drives

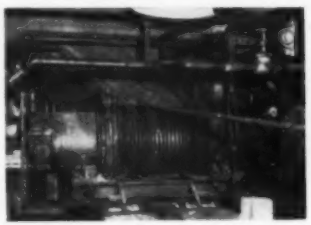
Oilgear direct action hydraulic shotgun

THE Oilgear Co., which pioneered many hydraulic sawmill applications has again engineered an outstanding development in the industry—the first direct action hydraulic shotgun. Illustrated is an installation of an Oilgear powered shotgun, installed by the Mater Machine Works in a stud mill. The drive consists of two simple, single acting cylinders each of which is connected to one port of an Oilgear variable delivery pump. No control valves or auxiliary equipment is required. This drive gives up to 15 miles per minute and the mill is cutting up to 10,000 bd. ft. per 8 hr. day. The hydraulic shotgun is especially suited to short log mills of from 8 to 20 ft., requiring high speed.

In addition to the shotgun type of drive, the self contained Oilgear powered cable type carriage drives using the new type "H" low inertia motors are proving increasingly popular. These drives give outstanding performance for their size and are highly efficient.

In addition to the carriage drive application, new Oilgear applications recently made include drives for hydraulic barkers, resaws and conveyors and hydraulic equipment for flippers on sawmill carriages.

Air Motor Drive



One of the major new developments in sawmills has been the use of air motors. During the past three years Carl H. Grimm, of the Carl H. Grimm Co., Seattle, has been introducing Gardner-Denver air motors into a number of operations in the lumber manufacturing channels. The mill machinery manufacturers also find the air motor in many cases makes their machines easier to operate and have shown definite increases in productions. The rugged construction, low maintenance costs plus reduced shut down times are further reasons for the popularity of the air motor.

Some of the many uses for the air motor in sawmills are for powering Gardner-Denver sawmill carriage feeds, edger feed rolls, resaw feed rolls and also line bar feeds. One of the latest installations is using the air motor to power a short live deck chain in conjunction with deck flippers for spotting the cant or log in the proper position to give the deck flipper the advantage in making the turn. The air motor has been proven in sixteen different applications throughout the lumber manufacturing industry.

The five cylinder radial type air motor has been manufactured for over 20 years. Mr. Grimm states that air motors were first developed for use in the mines. The efficient intermittent service of the air motor has since branched into other types of equipment and are now used in the manufacturing of over 150 different machines. The continuous starting and instant stopping, smooth variable speeds, high starting torques, no damage from overloading or stalling, controlled in either rotational direction by throttle or solenoid valves, being moisture proof and dust proof gives the desired power for the toughest operations.

Air Cylinders

Ledeen heavy duty cylinders operate this lumber trimmer.

A lumber trimmer, manufactured by Galbraith and Sulley, Ltd., Vancouver, B. C., uses side-by-side circular saws 2 feet apart, or 1 foot apart if required, cuts lumber up to 6" thick into the best commercial grade lengths. Instant raising or lowering of each saw by remote control is necessary to produce best board lengths and to maintain unusually high rate of production. Boards are drawn onto the trimmer every 1½ seconds. Each saw can be instantly raised or dropped 40 times every minute. With such trimmer capacity new standards in efficiency, operating ease and production have been set. 11, 4" diam. x 6" stroke Ledeen heavy duty cylinders are used.

Each saw is mounted separately on a hinged bracket and is individually belt driven from a common drive. Fastened to a beam and connected to each saw mount is a Ledeen heavy duty cylinder. Pneumatic pressure supplies power to actuate the cylinders. Individual control valves, one for each saw, are located at the operator's platform.

"Monarch" Air Electric Carriage with Andrus Board Dogs

MANY complicated mechanical devices formerly used to power the various functions employed on the basic types of woodworking and pulp mill production equipment, are now avoided in many cases because of the ease with which air or hydraulic cylinders can be incorporated in the design to do the same job.

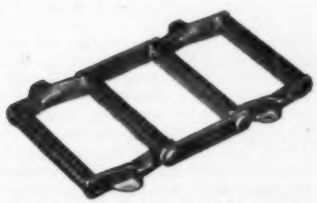
Mill operators and engineers know that by employing air or hydraulic valves and cylinders, they can accomplish completely automatic operation where required, or on jobs demanding manual control, the actual effort of the machine operator to effectively control the machine's action, consists of merely pushing a control switch, or poppet, or slightly moving a small hand or foot operated valve.

For many years, NOPAK valves and cylinder, manufactured by the Galland Henning Mfg. Co., have been favorites of mill operators, designing engineers and the fabricators of wood working equipment and pulp and paper mill machinery.

Keeping pace with the ever increasing demand for air and hydraulic cylinders and valves, Galland Henning have accordingly added to their own production equipment. Offering four classes of cylinder construction, in diameters from 1½" to 16", suitable for air, low pressure water or oil hydraulic systems and high pressure oil installations, as well as a complete line of air and hydraulic valves.

The demand for air and hydraulic cylinders and valves to activate machinery, as well as to provide power for the many labor saving, push and pull or simple lifting jobs, is rapidly growing as the mills seek ways and means to increase production.

Chain Conveyor



Chain Belt Co.'s new Rex Combination refuse conveyor chain.

ACCORDING to W. F. Nichols, of Seattle, district manager of Chain Belt Co., manufacturers of chains, have kept pace with the progress and modernizing within the lumber, plywood and pulp and paper fields. As an example he cites the new type box link style conveyor chain (known as Rex combination type) developed by Chain Belt Co. This chain operates on the same sprockets as the presently used H-type conveyor chain. However, it has greater advantages for the user in that it is 50% stronger to start with, uses a larger diameter rivet and will give much longer life with more freedom from breakdowns. It will take more pounding of heavy material dropped from other conveyors, such as slabs. It can be operated on either side of the chain, as the wearing shoe design is compatible.

Nichols also reported that another Chain Belt item that is becoming more and more widely used in the forest industries is the precision made steel roller chain for use on trimmer feed tables. The pusher attachment on this chain has a rounded nose, which permits easy crosswise movement of the lumber on the table. The plain links of the chain have a ¼" high spur on each side, this preventing the saw from kicking the small pieces of lumber that are trimmed off the stock. The outstanding features of this new chain are: (1) it will run on H-78 standard sprockets and in the same runway; (2) it will also operate on cut sprockets if greater accuracy is desired; and (3) the bushings and rivets in the chain are alloy, case-hardened steel.

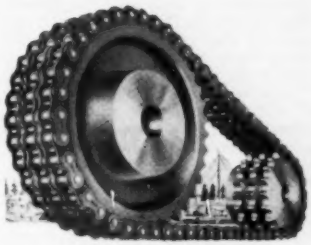
Roller Top Chain

Jeffrey Roller top sawmill chain

RECENTLY introduced to the sawmill industry is Jeffrey's RW type roller top chain, manufactured by the Jeffrey Manufacturing Co., Columbus, Ohio, and distributed in Oregon and Washington by Northwest Chains & Sprockets. This is the type of conveyor chain used on sorting tables and elsewhere in the flow system of a mill permitting lumber to be rolled off the conveyor rather than be dragged off. The chain was designed specifically for sawmill use.

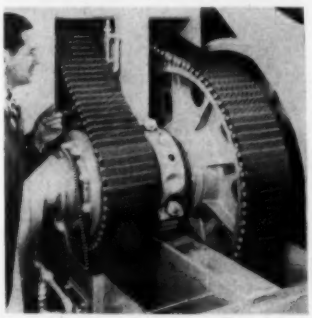
In the forest products field, another new Jeffrey chain, according to Bob Feurbach of Northwest Chains & Sprockets of Seattle, is their type PW Combination Chain for handling pulpwood. This design was created because pulpwood handling requires heavy chains with extra large wearing surfaces. The conveyors are usually dirty and the chains, sliding in troughs and on return runways, encounter much sand and grit.

Chain Drives



Whitney Roller Chain Drive

ALTHOUGH there have been no major developments in chain drives during the past year, Bob Feurbach of Northwest Chains and Sprockets, Seattle, indicated that resistance to shock loads has been an improvement. Feurbach was speaking of Whitney Chain drives, which are handled by his company in Oregon and Washington. He was reporting on 3 strand, 1½" pitch Triplex Whitney Roller chains transmitting power from a 300 HP motor to a sawmill headrig. In one particular case—where there were power surges up to 650 HP, — the Whitney chains withstood the heavy overloads. Besides headrigs, Whitney chain drives are seeing service on plywood lathes and in logging equipment, such as yarders and loaders. The Whitney organization manufactures a complete line of roller, silent and conveyor chain.



New Morse Hy-Vo chain drive.

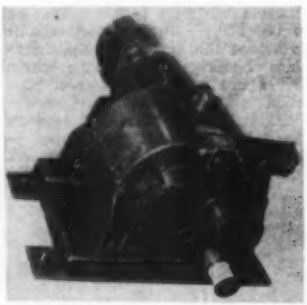
THE Kurth Lumber Company, of Jasper, Texas, is installing one of the first Morse Hy-Vo drives to be used in the lumbering field. Their requirements called for a drive to connect a 100 H.P. motor powering a circular saw at 1750 RPM. A proposed V-Belt drive which would

have required a minimum of 14 type "C" belts with 14" sheaves was discarded for a 1" pitch, 2" wide Hy-Vo chain with 29 and 44 tooth sprockets needing only 1/7 as much space, while operating at a velocity of 4230 F.P.M. The Kurth Lumber Company installation is said to be the first electrically driven saw mill in Texas.

Morse Hy-Vo drives have been installed in many of the pulp processing industries such as: The Robert Gair Company, Piedmont, New York using a 1½" pitch, 8" wide Hy-Vo drive from a 200 H.P. motor to a pulp beater; Ecusta Paper Company, Charlotte, N. Carolina—a 1" pitch x 4" wide chain on 39 and 42 tooth sprockets driving a fan. Also, drives soon to be installed are: The Newton Falls Paper Company, Newton Falls, New York—1½" pitch x 5" wide Hy-Vo drive connecting 250 H.P. turbine to Paper Mill; and the International Paper & Supply Company of Panama City, Florida, which utilizes a 1½" pitch x 6" wide Hy-Vo drive connecting a 300 H.P. motor to a Nash pump.

"The positive Morse Hy-Vo drive," the manufacturers state, "offers consistently accurate timing with no appreciable power loss between driving and driven units. It is compact, noiseless, 99.5% efficient, and eliminates the need for expensive outboard bearings and space consuming shaft extensions."

Electric Motocylinders



Typical Westinghouse Motocylinder with crank arm mounted on output shaft of heavy-duty gearmotor. Motor-mounted disc brake is on opposite end from crank. Limit switches are shown above crank arm.

By

J. C. MARSHALL
Industrial Application Engineer
Westinghouse Electric Corporation, San Francisco

THE Motocylinder—an all-electric drive for machines handling logs and lumber—is replacing the steam cylinder in many wood mills in the West.

The Motocylinder consists essentially of a heavy-duty gearmotor with a crank arm attached to its output shaft, a hoist-type Westinghouse Life Line motor, and a disc brake. The Motocylinder is connected to the driven device through a connecting rod so that rotation of the crank on the Motocylinder moves the driven device back and forth producing the required reciprocating motion. Electric limit switches interconnected directly with the crank cause the motor to stop at definite stroke positions.

Typical applications of this electrical drive in the wood industry include driving: log haul unloaders, deck stop and loaders, pin stops, and kickers. These operations consist of lifting or pushing logs, cants and boards from one operation to another.

Although steam and air cylinders have done a creditable job for many years on these applications, the Motocylinder is finding increased application for the following reasons:

1. Better "waste" wood utilization. Because the electric Motocylinder does not consume steam, its use reduces requirements for wood to burn under steam boilers. Mills are finding more profitable uses for this wood that was formerly considered waste.

2. Decreased maintenance. There being no steam and water leakage, no cylinders to lubricate and no piston rings to replace, maintenance is reduced drastically.

3. Increased economy. The Motocylinder consumes power only when operating while the steam cylinder has continuous condensation and leakage to reduce its overall efficiency.

4. Reduced investment. By eliminating or reducing in size the steam plant or air compressor required to supply conventional cylinders, less initial capital investment is required.

These drives are available in ratings from 1 to 20 horsepower, with cranks that will provide strokes of from 8 to 24 inches. The Motocylinder will exert a force of from 300 to 15,000 pounds, depending on desired stroke length and time.

Electrofluid Drives

Link-Belt Electrofluid Drive in the plant of the Magnolia Lumber Co., Rogue River, Oregon. (Link-Belt Co. photo)

LINK-BELT Company, Seattle, reports that a number of very interesting installations of Electrofluid drives have been made recently at saw mills and pulp mills, indicating a trend toward improved operation and lower power consumption.

One of these installations, here illustrated, is located at the modern sawmill of Magnolia Lumber Company, Rogue River, Oregon.

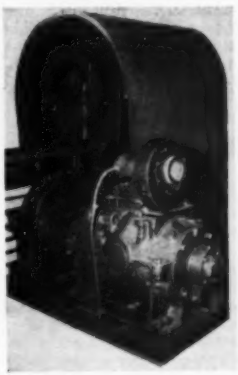
Here the live roll case for handling timber as large as 20"x20"32-ft. from mill floor, is driven through SS-88 steel chain connected to 145-r.p.m. output shaft of a 5 h.p. Link-Belt EG-30 Electrofluid Gearmotor.

A multiple-strand H-78 chain conveyor lowers the timbers, weighing up to 5,000 lbs., at 20 ft. per minute. The drop to live rolls is 12 inches.

The live roll case consists of nine 10-in. diam. rolls, spaced 4-ft. centers. Each roll shaft is supported by two Link-Belt P-331 ball bearing pillow blocks, and is driven from the SS-88 chain, which is in the form of a continuous strand connecting with all roll shafts.

The Electrofluid type of drive was selected to permit smooth, cushioned starting and reversal of the loaded roll case, with minimum consumption of power, and is working out very satisfactorily at Rogue River, as on other installations.

Electric Drives

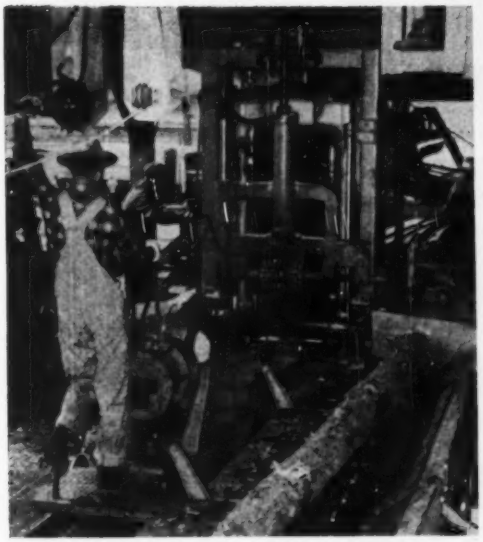


The Hillman all electric variable speed barker feed drive.

IN order to realize the best performance from any hydraulic barker, it is necessary to have a means of varying the speed of both the infeed and take-away log conveyors. To fill the need for this special drive, the C. Kirk Hillman Company of Seattle has developed a direct current, variable speed drive designed especially for a barker feed application.

This drive consists of two drive motors which are connected to the two log conveyors. The drive motors receive their power from a single motor generator set which can be

WHAT... LUMBER FROM LODGEPOLE PINE?



YES! IN IDAHO THEY'RE MANUFACTURING LODGEPOLE PINE LUMBER WITH *The* SUNBO 30" GANG SAW

....*and Profitably!*

★ The J. I. Morgan sawmill Cascade, Idaho operates a SUNBO 30" GANG SAW converting lodgepole pine logs into boards. The above picture shows the sawyer riding on the infeed carriage with hand on the horizontal overhead variable-speed feedwork control. ★

This Swedish Type Gang Sawmill is proving conclusively that lodgepole pine can be profitably manufactured into lumber and that Sunbo Gang Saws increase the yield per log and the yield of usuable wood per acre. Logs from 6 to 30 inches in diameter can be utilized and the crew, which was trained by Sundbom's Staff is increasing the daily output which will soon reach up to 40.000 board feet.

The gangsaw is powered by 125 h.p. Wagner motor 700 R.P.M. and the simplicity of the machines operation and maintenance is a large factor in it's success.

SUNBO GANG SAWS are unsurpassed in workmanship and performance anywhere and are in wide use throughout the timbered regions of the United States, Canada and many foreign countries.

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placed in any convenient location. A single compact operator's station provides complete control over both motors which can either be run together and automatically synchronized over a wide speed range or run singly in order to adjust the spacing of the logs on the conveyors. The motors will maintain constant speed at any setting regardless of the size of the log. The control station also provides reversing for either motor or both motors together in case a log does not get completely barked on the first run. The speed changes, direction of motion, and motor selection can all be accomplished instantaneously while the drive is in operation. All of this control is obtained by means of one speed control lever and two selector buttons in the operator's control station.

The Hillman all electric drive is provided as a complete package with all motors and control, including all necessary undervoltage and overload protection.

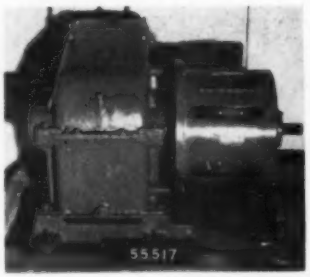
Amplidyne Drive

AN outstanding development by the General Electric Company for the lumber and other forest products industries is the amplidyne controlled electric log carriage drive, available in sizes from 7½ HP up to 500 HP (MG driving motor rating). A number of these drives are now installed in the Pacific Northwest and are meeting the high performance required by fir and high speed pine mills. Sawyers have praised the drives' effective re-generative braking and automatic limit switches which have contributed to low operating costs and greater personnel safety in mills.

In the plywood industry a similar type of drive has been applied to veneer lathes. This drive holds the sheet speed constant as the log is reduced in diameter, and protects the equipment against excessive speeds and loads. The easily operated lathe master switch gives a definite sheet speed for every position and maximum acceleration with every change of position. These features not only permit faster production but by providing maximum torque at slow, easily controlled speeds, permits more usable veneer from poor logs.

Out of the development of the Hydraulic Barker has come the application of an amplidyne controlled DC variable drive, very similar to the log carriage drive, for operating the nozzle and log handling equipment. Paralleling this increased output of clean log volume by hydraulic barkers, more and more wood chippers, usually driven by synchronous and wound rotor motors are being used effectively in the lumber industry. These drives incorporate electric plugging or dynamic braking for quickly stopping the large, fast rotating chipper discs.

Reduction Drives

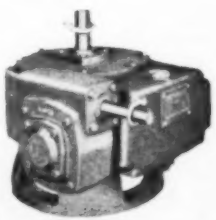


One of the new developments in the Pacific-Western line is this Pacific-Western double reduction speed reducer with integral fluid coupling drive.

WESTERN Gear Works, Seattle, for a long time a major supplier of gear products for sawmills, reports an ever growing list of uses for their Pacific Western double reduction herringbone speed reducer. This unit comes in a range of from 3 to 125 HP; ratios 2-1 and 300 to 1. Uses include those on log hauls, electric log carriages, drives to set works, transfer tables, trimmer saws, refuse conveyors, lug chains, belt conveyors and automatic stacking and unstacking equipment.

The newest addition to the Western Gear line (illustrated) is the double reduction herringbone speed reducer with integral fluid coupling drive. The basic application of this new reducer is to prevent breakage when the conveyor gets hung-up or bound by "shock" loading. It permits high starting loads to be handled by motors having normal starting torque characteristics. The Pacific-Western reducer with integral fluid coupling drive is furnished in most all ranges. Several are now in operation on log hauls and conveyors in sawmills and pulp mills.

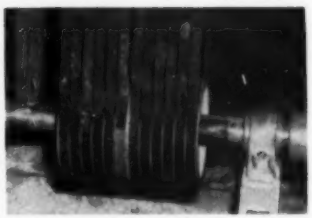
Gear Reducers



Eberhardt-Denver Vertical Double Reduction gear

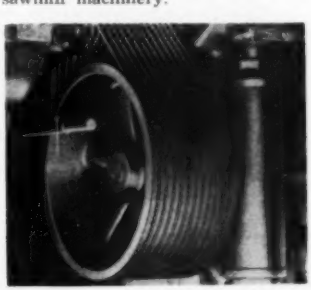
ONE of the new names in manufacturing that has shown up during the past year as far as the sawmill industry is concerned is that of the Eberhardt-Denver Co., Denver, Colorado. The company specializes in manufacturing worm gear speed reducers, and through their dealer, Northwest Chains & Sprockets (Portland and Seattle) the Eberhardt-Denver line is finding recognition in power transmission applications. According to Bob Feurbach of Northwest Chains & Sprockets, Eberhardt-Denver offers units from fractional to 75 HP, a wider range than offered by other manufacturers. The sawmill applications are all AGMA rated units.

V-Belt Drives



"Condor" Whipcord V-Drive

"CONDOR" Whipcord V-belts, a product of the Manhattan Rubber division of Raybestos - Manhattan, Inc., have been selected for a growing number of uses in the lumber industry according to P. H. Hagen, who represents this division in the state of Washington. The advantages of the V-belt for drives in any and all places—transmitting power in limited space or in places that present problems—has focused a lot of attention on the versatility of the Manhattan "Condor" V-belts in the opinion of Hagen. Manhattan also manufactures a special "Condor" whipcord endless belt that has found use in transmitting power on belt-driven planers and other types of sawmill machinery.



Dodge V-Belt Drive

REPORTS of a growing use of Dodge V-Belts in the forest industries is made by the Dodge distributor in Washington—Washington Belting and Rubber Co., through Lee Lanham, manager of their Seattle branch. The Dodge V-belt line is designed for top performance in the sawmill field, according to Lan-

(Concluded on Page 110)

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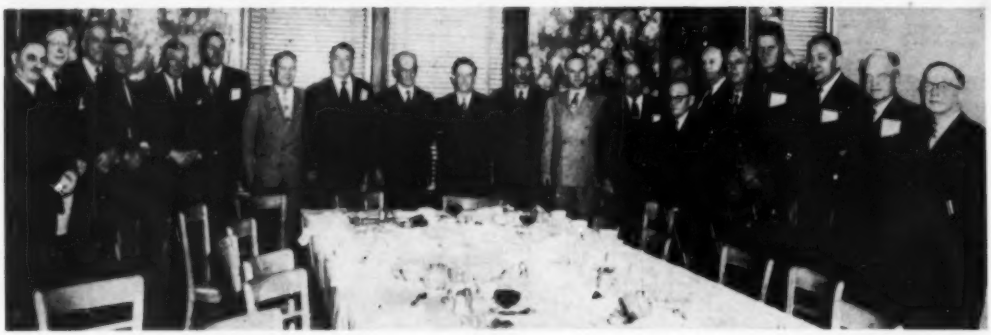
Osaka, Japan · Gothenburg, Sweden · Zürich, Switzerland

FORESTRY RESOURCES AND SLASH DISPOSAL



Officers and directors attending annual breakfast meeting. Left to right, Treasurer, C. S. Cowan, Washington Forest Fire Assn.; R. F. Morse, Long-Bell Lumber Co.; Edmund Hayes, Weyerhaeuser Timber Co.; E. T. F. Wohlenberg, Masonite Corp.; S. G. Smith, MacMillan & Bloedel Ltd.; E. P. Stamm, Crown Zellerbach Corp.; P. D. Edgell, Northern Pacific Railway Co.; Forest Counsel Stuart Moir; President Elect C. D. Orchard, British Columbia Deputy Minister of Lands & Forests; 1951 President, Walter Neils, J. Neils Lumber Co.; W. H. Rathert, J. Neils Lumber Co.; George Neff, Anaconda Copper Mining Co., Lbr. Dept.; E. R. Aston, Bliss-Colemen Lumber Co.; Corydon Wagner, St. Paul & Tacoma Lumber Co.; E. B. Tanner, Western Management Co.; W. R. Schofield, California Forest Protective Assn.; E. B. Birmingham, Hammond Lumber Co.; A. M. Roberts, So. Idaho Tbr. Protective Assn.; John Aram, Boise-Payette Lumber Co.; Fritz Jewitt, Potlatch Forests, Inc.; Secretary Clyde S. Martin, Weyerhaeuser Timber Co.

MAJOR THEMES OF DISCUSSION AT 42ND WESTERN FORESTRY CONFERENCE

FORESTRY RESOURCES

The Forest Resources of the West and their protection, were the two major topics discussed at the 42nd Annual meeting of the Western Forestry & Conservation Association at Portland, Ore., November 28-30. More than 600 attended this conference.

For the first time in its history the conference elected a public forestry agency man as president. He is Dr. C. D. Orchard, of Victoria, B. C., Deputy Minister of Lands and Forests of British Columbia.

The next meeting of the Association will be held at Victoria, B. C., starting December 10.

The subject that developed the most discussion was that of what to do with slash and the question of liability in case fires starting from slash areas spread to other lands.

In opening the meeting President Walter Neils said Forestry is a dilusion unless forests are protected from fire and insects.

Forest Counsel Stuart Moir declared that generally the forest laws of the west are adequate but need better enforcement.

E. W. Tinker, secretary American Pulp & Paper Association, said his industry naturally supports good forestry efforts because it must maintain a supply of raw material and has accepted forestry as a sound economic enterprise. In closing he said the tax drain is taking away capital that should be plowed back into the forest industries. He said the tax situation is of grave concern.

The winner of the association essay contest was presented. William Walters, U of BC won first award with an essay on Forest Insurance and Kurt A. C. Munnich U of Cal won second with an essay on "Why Differentiate Fire Protection from Forest Management."

Forestry Resources

Discussing Forest Resources, R. W. Cowlin, Pac. NW Forest Experiment Station, said that the timber supplies of the west are divided as follows, sawtimber 59 million acres; pole timber 2 million; seedlings and saplings 13 million; poorly stocked and deforested 11 million. 36 percent of the lands are privately held; 50 percent Federal 5 percent; other public 9 percent. The species situation follows; Fir 430 Billion ft; Ponderosa pine 85 Billion; Sugar and White pine, 41 Billion; Redwood 38 Billion; other 349 Billion.

L. R. Andrews, B. C. Lbr Mfgrs Assn, said the more intensive utilization is a very significant factor in ap-

New Officers: Secretary Clyde S. Martin, chief forester of Weyerhaeuser Timber Co., Tacoma, Wash.; President C. D. Orchard, Deputy Minister of Lands & Forests, Vancouver, B.C.; Stuart Moir, forest counsel of Western Forestry & Conservation Assn., Portland, Ore.; Treasurer C. S. Cowan, manager, Washington Forest Fire Assn., Seattle.

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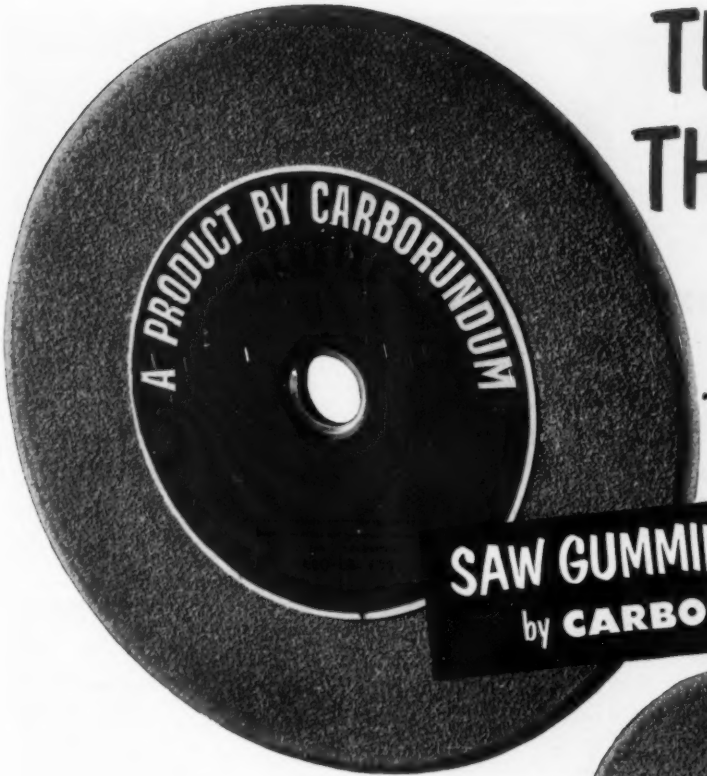

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Left to right: R. G. McKee, British Columbia Forest Service; John H. Beach, Rayonier, Inc.; Hans Milius, Brooks-Scanlon, Inc.; R. A. Taylor, California Division of Forestry, representing California State Forester DeWitt Nelson; Royce G. Cox, forester, Potlatch Forests, Inc.

Left to right: J. R. Frum, Crown Zellerbach Corp., reviews 1951 fires season, Avery S. Hoyt, chief, Bureau of Entomology & Plant Quarantine; L. L. Simpson, Southern Oregon Conservation & Tree Farm Assn.; Allen E. Thompson, forester, City of Seattle Water Department; W. R. Schofield, California Forest Protective Assn.

Left to right: E. W. Tinker, executive secretary of American Paper & Pulp Assn., Judge George T. Cochran, LaGrand, Ore., O. Harry Schrader, Jr., managing director of Douglas Fir Plywood Assn., Prof. Emanuel Fritz, University of California; Truman Collins, Collins Timber Properties.

Left to right: John Callaghan, California Division of Forestry; H. A. Richmond, Dominion Entomological Laboratory; J. B. Melin, Meteorological Service, Seattle; L. R. Andrews, executive secretary of British Columbia Lumber Manufacturers Assn., R. W. Cowlin, Pacific Northwest Forest & Range Experiment Station.

Left to right: Wm. D. Hagenstein, West Coast Industrial Forestry Assn., Dwight L. Phipps, Acting State Forester of Oregon; E. F. Heacox, Weyerhaeuser Timber Co., B. L. Orell, Washington supervisor of forestry.

praising the timber supply. He told of the timber inventory to be made in B. C.

E. L. Kolbe, Western Pine Association, said there likely is upwards of 20 percent more timber than present surveys show.

David T. Mason, Portland, said that while the supply of saw timber will decrease steadily, the average annual volume of forest products will gradually over a period of many years, be adjusted to the sustained yield capacity of the forests.

He predicted an expansion of the pulp and paper, hardboard plywood and by-product industries.

A. F. Wallen, told of the very rapid growth of redwood and said this growth should be adequate to maintain the redwood industry.

T. M. Tyrell said there seems to be no doubt but that the supply of timber on O&C lands is very much greater than current estimates indicate.

J. Herbert Stone, U. S. Forest Service, Portland, said he thought stocking in the Douglas fir area is better than in the south. He said lack of access roads is a real problem. He said forest management plans should be kept flexible.

C. S. Cowan, Washington Forest Fire Association, reported that incomplete returns indicated 11,741 fires in 1951 of which 31 percent were due to lightning; 5.8% to logging; 19.9% to recreation; 3.7% incendiary; 6.7 percent land clearing; 33.7 percent other. Nearly a million acres were burned over and 1,200,321M ft BM of timber burned. The average size of the fires was 79.7 acres.

The Slash problem

In discussing slash fires, S. P. Gessel U of Wash., said burning is rarely justified from a silvicultural standpoint. He predicted there will be less slash burning.

Several other speakers favored limited slash burning.

There then followed a spirited discussion of slash burning and burning liability led by W. D. Hagenstein, Forest Conservation Committee, Ed. Heacock, Weyerhaeuser Timber Co., and B. L. Orell, Washington State Forester. Mr. Hagenstein declared an owner should not be required to burn slash simply to throw off a legal responsibility. He said the thing that's wanted is new trees as soon as possible and that if by not burning new forests can be obtained quicker, perhaps the public should assume some of the responsibility.

Mr. Heacock presented a number of charts showing various slash prob-

Top: W. B. Greeley, vice-president of West Coast Lumbermen's Assn. receives award from Pres. Walter Neils for distinguished achievement in forest industries. Bottom: Winners of college essay contest: First award, William Walters, University of British Columbia; 2d award, Kurt A. C. Munnich, University of California.

Left: Fred Sandoz, Booth-Kelly Lumber Co. Right: Ali Sandoz, Long-Bell Lumber Co.

lems and types of ownerships and activities.

Mr. Orell said the owner should carry the slash hazard until the situation has returned to a normal condition. Operators, he said, must take reasonable means of protecting their lands from fire. He would not recommend broadcast burning in a selectively logged area. He said that in Washington under certain conditions slash disposal is the responsibility of the state.

Fred Sandoz, chief forester of Booth-Kelly Lumber Co., Springfield, Ore., raised the question of operator liability following operations carried on in snag patches. An organization operating on a snag patch reduces fire hazards, he pointed out, but still will be unable to get a release for the "hazard created" by the logging operations although less hazard remains than was present before logging.

Left to right: Arnold F. Wallen, of Hammond, Jensen & Wallen; David T. Mason, of Mason, Bruce & Girard; E. L. Kolbe, Western Pine Assn.; Chairman E. C. Rettig, Potlatch Forests, Inc.; J. Herbert Stone, regional forester of U. S. Forest Service; T. M. Tyrrell, Bureau of Land Management. Left to right: A. W. Greeley, Pacific Northwest Forest & Range Experiment Station; George H. Schroeder, Crown Zellerbach Corp.; Chairman E. C. Rettig, Potlatch Forests, Inc.; T. B. Plair, Soil Conservation Services; T. T. Munger, consulting forester; W. H. Larson, Washington Forest Fire Assn.

Insect Control

Avery S. Hoyt, chief Bureau of Entomology and Plant Quarantine discussed the Insect Problem, saying that development of new insectides has changed the whole insect control picture, making possible controls which were previously impossible. Study of spray applications is now the great need, he said.

Truman Collins told of the great progress made in control efforts through cooperation of public and private interests.

E. L. Kolbe, Western Pine Assn. and H. A. Richmond of the Dominion Entomological Laboratory, Victoria. B. C., reported on the progress of insect investigations and control efforts in the Northwest.

New Equipment

Discussing new fire fighting equipment John H. Callaghan, deputy state forester of California said that his state now has over 650 vehicles which can carry water for fire fighting purposes. They have 240 trucks which carry 240 gallons of water, eight men and tools. They have larger units carrying 400 gallons of water. They also have some four wheel drive units. He said their many Dodge power wagons are good units for this service. Trucks have two way radio. He said the cost of water per gallon is high but pays. He said "wet" water is used and highly regarded for certain purposes.

Several speakers stressed the great value of two way radio in forest fire protection and suppression, and that is now an indispensible tool in such activities.

Ali J. Sandoz, chief forester, The Long-Bell Lumber Co., Longview, Wash., told how portable two-way radio was effectively used last summer in fire suppression work. On the fire referred to, one portable transreceiver was at the pump truck and another at end of hoseline extending from pump back through timber to fireline. To instantaneous communications resulting from this set-up, he attributes the success of the suppression efforts. Without the help of on-the-spot two-way radio, it is felt the fire would have undoubtedly spread.

President Walter Neils presented the Associations Forestry Award to Col. W. B. Greeley for his outstanding contribution to the cause of sound forestry in the West.

Plywood timber resourses

One of the highlights of the meeting was an address by O. Harry Schrader, Jr., manager of Douglas Fir Plywood Association. He said the industry uses a billion feet of prime quality logs annually, and will need a billion and a half feet, to maintain an estimated production of 3 billion sq. feet of plywood. He estimated that there is 70 Billion feet of peelable Douglas fir in Oregon, Wash. and California.

He said plywood plants own about 25 Billion feet of standing timber. He said that taking into consideration all possible sources of raw material including growth "a purely statistical analysis would indicate a life expectancy of the plywood industry of 40 years and taking into consideration improved manufacturing techniques and greater utilization, the industry should be able to operate indefinately."

Allen E. Thompson, forester for the Seattle Water Department said that timber harvesting had been in progress for 50 years on the city's watershed, now yielding about 35,-

000,000 feet annually. After about 40 years harvesting will switch to second growth. He said logging had had no appreciable effect on precipitation, runoff or quality of water.

E. C. Sammond, Portland banker said that under scientific management forest lands are approaching the point where they have banking values.

Resolutions

Resolutions presented by Emanuel Fritz, urged more fire weather forecasting; more forest insect control and studies; opposed further acquisition of private lands by federal agencies except in case of emergencies; urged that public timber holdings be in large blocks capable of sustained production; urged that the engineering and construction of access roads should be in keeping with the intended need and use of the roads; urged a realistic taxation program on the part of taxing bodies; urged joint state and private action in developing natural resourses; urged congress to set up a representative committee to study weather control.

The closing Friday afternoon Governors' session was attended by Governor McKay of Oregon and Lee Jordon of Idaho and representatives of the other western states and British Columbia.

A major address was made by Col. W. B. Greeley in which he outlined the development of forestry in the west. While advocating private forest enterprise, he warned that there are vast inaccessible areas in the west which likely should be held in federal or state ownership.

New Officers

President—C. D. Orchard, Deputy Minister of Land and Forests, Victoria, B. C.

Vice Presidents—S. G. Smith (British Columbia) Bloedel, Stewart & Welch, Ltd. Vancouver; E. T. F. Wohlenberg (California) Masonite Corp. Ukiah; John L. Aram (Idaho) Boise, Payette Lumber Co. Boise; A. L. Helmer (Montana) Polson Lumber Co. Polson; E. P. Stamm (Oregon) Crown Zellerbach Corp. Portland; E. R. Aston (Washington) Biles-Coleman Lumber Co. Omak.

Secretary—Clyde S. Martin, Weyerhaueser Timber Co., Tacoma, Wash.

Treasurer—C. S. Cowan, Washington Forest Fire Assn. Seattle, Wash.

Asst. Secretary-Treasurer—Carl V. Hersey, Portland, Ore.

Forest Counsel—Stuart Moir, Portland, Ore.

Trustees—P. D. Edgell, Northern Pacific Railway Co, Seattle; R. J. Filberg, Comox Logging & Railway Co. Vancouver, B. C.

memo from PAUL E. KEENEY

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Edmund Hayes, Weyerhaeuser Timber Co. Portland; G. F. Jewett, Potlatch Forests, Inc. Spokane, Wash.; Roy F. Morse, The Long-Bell Lumber Co. Longview, Wash.; George Neff, Anaconda Copper Mining Co., Bonner, Mont.; Walter Neils, J. Neils Lumber Co., Libby, Mont.; E. C. Rettig, Potlach Forests, Inc., Lewiston, Ida.; E. B. Tanner, Portland; Corydon Wagner, St. Paul & Tacoma Lumber Co. Tacoma, Wash.; Kenneth R. Walker, Walker Forest, Atherton, Calif.

Alternate Trustees—E. B. Birmingham, Hammond Lumber Co., San Francisco; Henry Dennis, Soundview Pulp Co., Everett, Wash.; W. J. VanDusen, H. R. MacMillan Export Co., Ltd., Vancouver, B.C.; A. J. Glassow, Brooks-Scanlon, Inc., Bend Ore.; L. J. Forrest, Rayonier, Inc., Hoquiam, Wash.; George S. Long, Weyerhaeuser Timber Co., Tacamo, Wash.; George Neils, J. Neils Lumber Co., Klickitat, Wash.; U. R. Armstrong, Hallack & Howard Lumber Co., Cascade, Ida.; B. S. Cole, Rosboro Lumber Co., Springfield, Ore.; Walter Rathert, J. Neils Lumber Co., Klickitat, Wash.; Raymond H. Berry, Scott Lumber Co., Burney, Calif.; Arthur M. Roberts, Southern Idaho Timber Protective Assn., McCall, Ida.; George L. Drake, Simpson Logging Co., Shelton, Wash.; John E. Liersch, Powell River Co., Ltd., Vancouver, B.C.

Photogrammetrists Meet

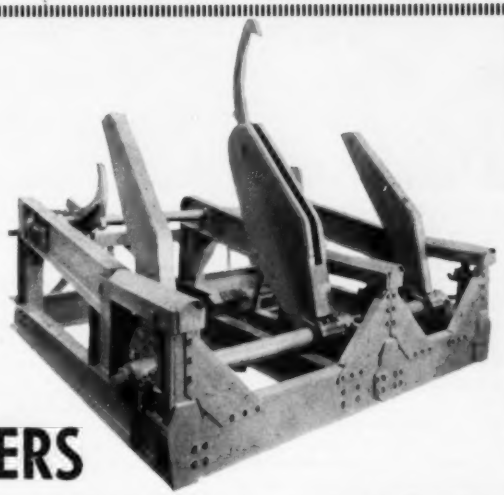
Approximately 200 photogrammetrists, foresters and other interested specialists, met in the Multnomah Hotel in Portland on November 27 for the annual meeting of the Columbia River Section, American Society of Photogrammetry.

One highlight of the program was a talk by Lester Calder, Land Manager Springfield Division, Weyerhaeuser Timber Company, on Photogrammetry as an Aid in Forest Management. Calder recommended the production of 1:12,000 scale aerial photography (scale of 1,000 feet per inch) and the making of a good planimetric map from the photos with allowable error no greater than 50 feet horizontally. He also recommended production of a reconnaissance topographic map at a scale of 1" per mile with 100-foot contours for the whole watershed and a more detailed map for the immediate area to be logged at a scale of 400 feet per inch with 20-foot contours. He recommended that photos be pretyped before field work to show the following land classes: barrens, nonmerchantable timber, second growth, and old growth, and that boundaries of these classes be transferred to the planimetric map for acreage determination. During a subsequent field cruise more information on types would be obtained along with volume estimates, and section corners would be pinpointed on the photos wherever accurate ground identification of photo detail could be made.

Another program highlight was discussion of A Forest Management and Logging Engineering Plan by Page Gilbert of Harbor Plywood Corporation. Gilbert stressed the importance of keeping timber inventory and logging engineering costs to a minimum. Aerial photogrammetry, he maintained, would facilitate those procedures, but methods should be as simple as possible to attain objectives. He estimated that costs for a creditable cruising and mapping job including aerial photography and planimetric map construction should not exceed 25 cents per acre.

Other features on the program were: a discussion of applications of photogrammetry in property assessment (with emphasis on timberlands) by W. W. Trantow, Assessor of Cowlitz County, Washington; descriptions of procedures for topographic mapping by representatives of leading aerial survey firms.

Malcolm R. Graham has acquired the property of White Lumber Co., in Meridian, Miss., from Governor-Elect Hugh L. White. Change in ownership became effective Jan. 1, 1952. The new owner plans to enlarge and improve the property.



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. . . provides "the strength of steel" needed on any log deck to take repeated shocks without "flinching." Can be moved in and installed in a matter of hours.

2 HOOK INDEPENDENTLY CONTROLLED
Here Peters has designed, for maximum operating flexibility, a hook which is controlled independently, activated by its own cylinder. Raised or lowered in any position of arm.

3 SEPARATELY OPERATED LIFT SKIDS
Note extra cylinders to give independent operation to lift skids. Result: faster, easier, more positive turning—can be used in conjunction with flipper.

4 STOP AND LOADER
. . . of extra rugged all-steel construction for long service.

5 STEEL BEARING HOUSINGS
All bearings in steel housings—no breaks or failures—another Peters precaution to assure you of the finest.

CAN BE SECURED in models with either air or hydraulic operation.

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JACK MORGAN OPERATES NEW LODGE POLE PINE SAWMILL

Top: Exterior of plant, showing sawmill, green chain, conveyor, 30 ft. diameter Idaho Sheet Metal Works (Boise) refuse burner, and Ross 14 H T lift truck with load of lumber. Bottom: Running the show are Ted Taknen, furnishing logs for the mill on contract; Jack I. Morgan, president of J. I. Morgan, Inc.; Ancil McDougal, sawmill superintendent.

J. I. Morgan, known throughout Pacific Northwest logging circles as a progressive operator in that field and president of J. I. Morgan, Inc., has entered the lumber manufacturing phase of the forest products industries.

Here is more than news about an outstanding logger's entry into the field of sawmilling—he came into sawmilling with a somewhat different approach, building a plant primarily intended for manufacture of lodgepole pine lumber.

This new mill, located at Cascade, Idaho, went into production the first of September, cutting lodgepole pine of 6 to 30 in. diameter. At the start, using an inexperienced crew, the cut ran 16,000 board feet per day. Production is now 20,000 feet per day in spite of icy conditions. It is conservatively anticipated that production will be doubled as the mill machinery becomes broken in and the crew acquires experience.

During the past few years Idaho has been considerably affected by large developments of various sorts —atomic energy operations, dams, irrigation projects, mining of strategic minerals, etc., many of which have necessitated extensive land clearing. This seems to have been particularly prevalent in lands covered by lodgepole pine timber.

Until now the few attempts made by lumber manufacturers and loggers to obtain the timber removed from these project areas were largely unsuccessful. In the first place, there has been but little demand for small timber characteristic of the areas to be cleared. Sawmills not specifically intended for manufacturing small logs—down to 4 in. tops—were at somewhat of a disadvantage. Also, the land-clearing contractors were inclined to be averse to becoming involved with the complications concerned in segregating merchantable timber from the non-merchantable. Some felt that the extra costs in cleaning up following removal of merchantable logs would amount to more than could be derived from sale of the logs.

Ross lift truck loads lumber on Kenworth truck and Utility trailer for transport to Boise-Payette plant at Emmett. Truck is powered by 200 h.p. Cummins diesel engine.

Jack Morgan's sawmill operates on lodgepole pine coming from one of these areas. Timber-covered land along Big Creek, 3 to 5 miles from the mill, is being dredged to recover valuable and strategic sands containing monazite (a thorium mineral which is radioactive) and other minerals. Morgan bought the stumpage and contracted the logging to Ted Taknen who has a reputation of pole-logging specialist.

Small Log Utilization

Built for lodgepole pine, this sawmill is also considered as the answer to utilization of small logs of the other species growing here—fir, larch, spruce, and Ponderosa pine.

The mill, wholly powered by electricity, features prime processing machinery as follows: A Mill Engineering 30 in. Sundbo type gang headrig, Idaco 4 x 48 in. edger, and Irvington No. 50 air-lift trimmer which was purchased as a complete package unit.

The mill was designed and laid out by Mill Engineering and Supply Co., Seattle, under direction of Carl Sundbom. The mill crew was also trained by Sundbom's staff.

Long logs are cut to length in the pond by 30 in McCulloch chain saw driven by 5 h.p. electric motor, the suitable-length logs moving from pond to mill via bull chain log haul. From discharge end of log haul, where the logs automatically stop, the logs are kicked onto infeed headrig carriage by kicker actuated by Hanna air cylinder.

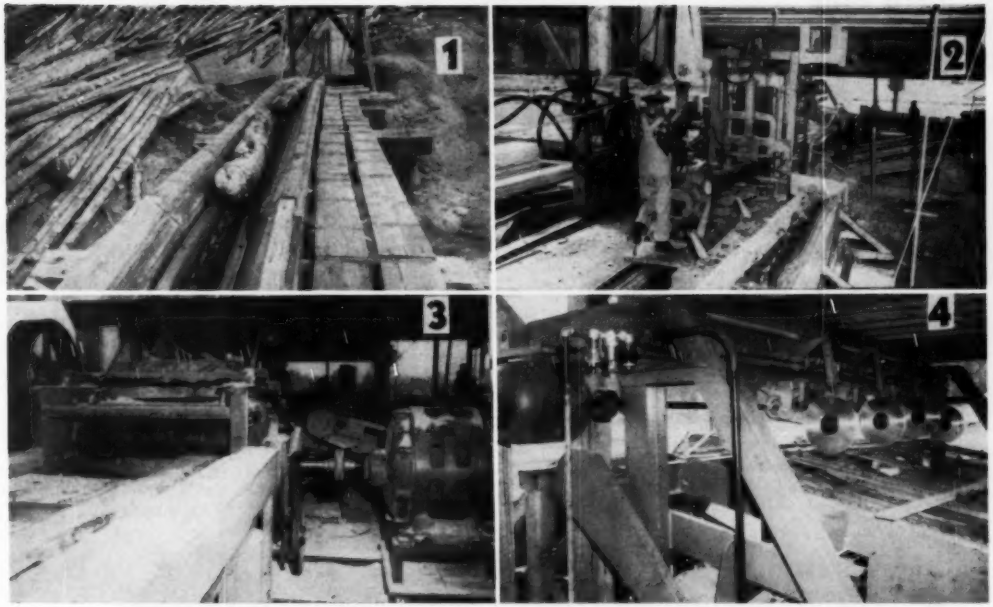
The headrig, powered by 125 h.p. Wagner motor through a Chicago leather belt, has variable-speed feedworks using Westinghouse generator and motors. Stock from headrig moves to the edger, through edger onto transfer leading to trimmer, through trimmer to green chain. The transfer ahead of trimmer uses Rex chain and Link-Belt bearings.

Edger saws and feed rolls are powered by 75 h.p. Westinghouse motor, the trimmer saws by 30 h.p. G. E. motor through Gates V-belts.

A Schramm 175 p.s.i. 206 c.f.m. compressor powered by 50 h.p. G. E. motor (bought from Western Equipment Co., Spokane) provides compressed air for the entire plant.

A Ross lift truck is used for transporting and handling lumber about plant and yard.

Lumber manufactured at this mill is sold rough-green to Boise-Payette Lumber Co., currently hauled to the B-P plant at Emmett by truck, but will subsequently be transported by rail when the spur is completed at



1. Small logs carried up Seattle bull-chain log haul from pond to sawmill. 2. Mill Engineering 30 in. gang headrig converting lodgepole pine logs into wane-edge boards. The sawyer, riding on infeed carriage, has hold of the horizontal overhead variable-speed feedworks control. Note log in conveyor ready to be transferred to infeed carriage by Mill Engineering kickers actuated by Hanna air cylinder. 3. Removing wane edges by processing through 4 x 48 in. Idaco edger powered by 75 h.p. Westinghouse motor. 4. Irvington No. 50 air-lift trimmer, powered by 30 h.p. G. E. motor, bought as a complete package unit.

the sawmill. Morgan's organization has been contract logging for B-P since 1945.

Logs Paid for on Weight Basis

The contract logging and hauling is on per-ton weight rate rather than the thousand board-foot basis common to the industry. Each truckload of logs is weighed and payment made according to ton load. This eliminates considerable time and effort that normally would be required for scaling the small logs. According to Mr. Morgan, 4000 to 5000 board feet loads are hauled, the weight running about 9.5 lbs. per board foot.

Loading logs onto truck-trailers in the woods is carried on by means of a 2-drum Hystaway mounted on D8 "Caterpillar" tractor, the system said to be "working out pretty well on these small logs." A model 400 P&H Excavator unloads the logs at mill pond.

Ancil McDougal is sawmill superintendent.

Saw sharpening equipment includes Acme circular grinder purchased from Star Machinery Co., and P. T. Hobbs stretcher rolls and grinder for gang saws.

Washington Quipsters Are Saying:

The Declaration of Independence contains 300 words.

The Ten Commandments, 297.

Lincoln's Gettysburg Address, 266.

The Lord's Prayer, 56.

The two commandments that comprise the whole law of God. 23.

But the OPS order setting the price on cabbage has 26,911 words. — Brooks-Scanlon Pine Echoes.

Service Pins Awarded

Cascades Plywood Corp., Lebanon, Ore., bestowed service pins to nearly 200 employes at a banquet early in December. The pins, denoting 5 and 10 years service with the organization, were presented by Charles W. Fox, president. Frank N. Belgrano, president of First National Bank, Portland, was guest speaker at the affair. He pointed out to the group the alarming acceleration of federal government's spending, taxing, and indebtedness. B. V. Hancock, Cascades vice president, presides as master of ceremonies.

Britt Holland Retires

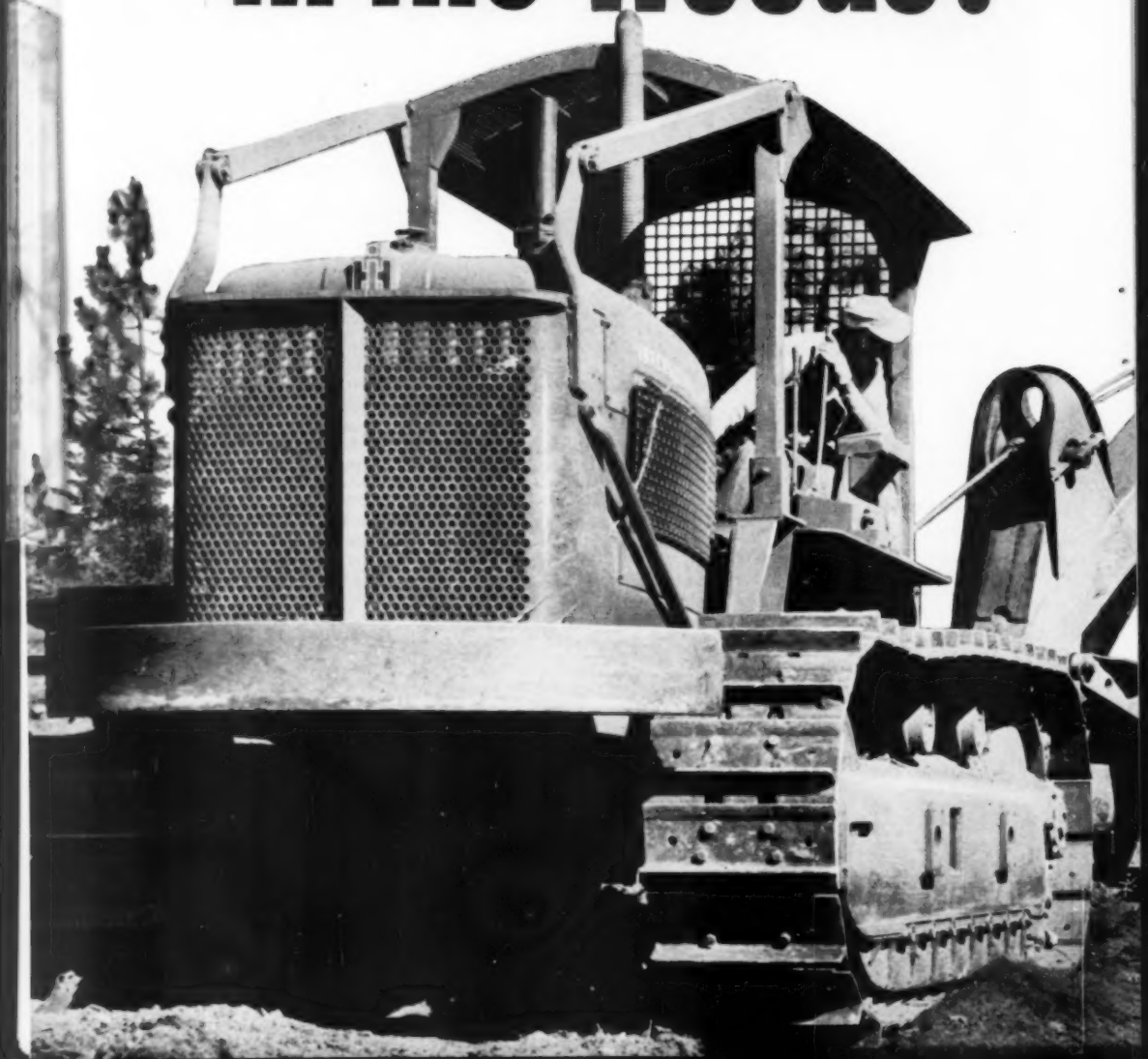
L. B. "Britt" Holland, for 43 years a member of the lumber division of Camp Manufacturing Co. and one of the best-known lumbermen in the Southeast, retired from active duty with Camp on December 1. He was superintendent of the saw mill and of the wood yard operations for the paper division of the company at the time of his retirement.

Holland's lumber career dates back to 1903 and the Wiggans Lumber Co. at Green Pond, S. C. With this company he went through the positions of band sawyer and mill foreman until he joined Camp in 1909. He moved to Camp's main mill at Franklin, Va., in 1918; was made assistant to the general superintendent in 1923 and then superintendent in 1945.

Mr. Holland's active career sets on a suitable note with the completion of an extensive modernization program (see THE LUMBERMAN, October 1951) at the Franklin mill.

L. B. HOLLAND

"Something New in the Woods!"



Superintendent on Shasta show tells how "Big Red"—with International's exclusive Planet Power steering—gets out more logs per day

Out in California's Shasta Forest, J. J. Bartle put two International TD-24 crawlers to work logging Douglas fir. The "Big Red Champs" really made a difference, and Job Superintendent Dave Shaffer tells the inside story:

"When we got our TD-24s, right away we could see they were able to do something new in the woods. Of course we knew a TD-24 would haul record loads of logs, but to be able to turn while carrying these loads was something never done before!

"All the operator had to do was drop one track into low speed and the tractor came around easy, moving right along, power on both tracks. No fuss or time lost for stops and winching on the big logs. It sure makes a difference in the work we get done!"

That's what International's exclusive Planet Power steering gives you, as well as the usual pivot and feathered turns. And here are three more reasons why the Big Red TD-24 is the work champ of the woods:

TD-24 POWER—148 maximum drawbar horsepower—more power than any other crawler on the market.

TD-24 SPEED—8 forward speeds up to 7.8 mph, 8 reverse up to 7.7 mph—gives you the speed to haul bigger loads faster.

TD-24 STARTING—Easy push-button starting in any weather with International's exclusive starting system.

Ask your International Industrial Distributor for details on the TD-24. Ask him, too, about his on-the-job field service and complete shop facilities. Get the low-down! You'll be a TD-24 man from then on in!

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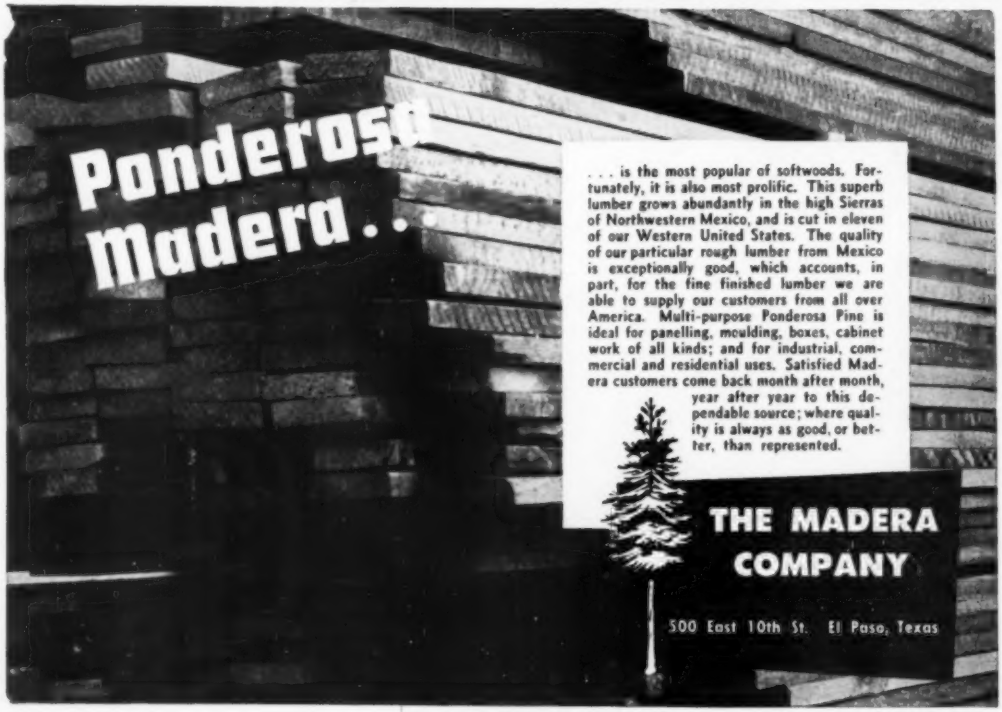

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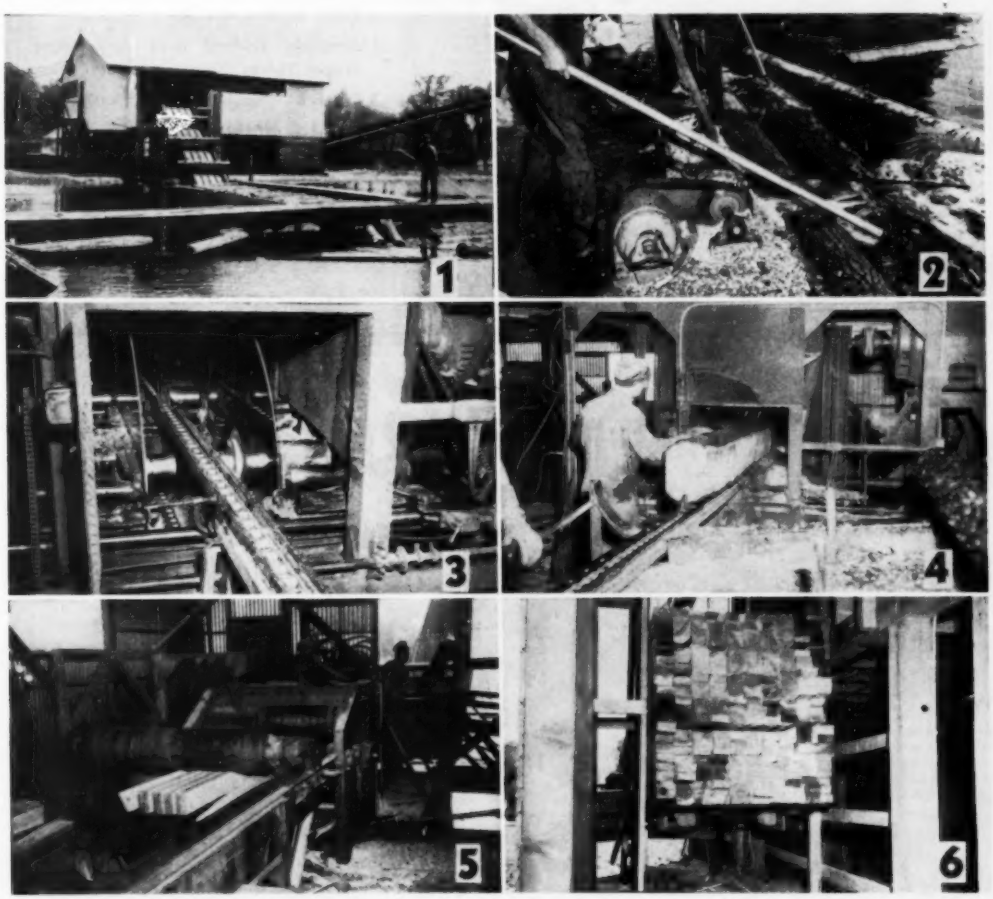
NEW STUD MILL PRODUCES 35,000 FEET PER DAY WITH FIVE MEN ON MILL FLOOR

Burkland Lumber Co., for past few years operating a conventional circular sawmill and planing mill at Turner, Ore., has augmented its plant facilities in the form of a stud mill. This new plant, located near the other mill which continues to carry on manufacturing operations, went into production early in 1950.

To state that this 8-foot stud mill is unusual would be an understatement. Power here is strictly electric with air auxiliaries; the "carriage" consists of a chain 2 or 3 inches wide, the headrig has two saws both mounted on same arbor, only two passes are made per log at headrig, and an edger is the only other piece of processing machinery in this mill which averages 33,000 board feet per shift with just five workmen on the mill floor.

Small logs for the stud mill, ranging from 6 to 18 inches in diameter reach the log pond directly from trucks bringing them in, or are locally moved from storage to the pond by lift truck. These logs are readied for the mill on the pond by bucking to 8-foot lengths with a Northwest Marine Iron Works "Blue Babe" electric powered chain saw.

Transport from pond to mill is by 3 h.p. Sterling gearhead motor powering chain-bracket inclined log



Burkland Lumber Co.'s new stud mill at Turner, Ore., averages 33,000 board foot daily production from small diameter 8-foot logs. 1. Exterior view of plant showing three logs enroute from pond to the mill log deck. 2. Bucking two logs to mill length with electric powered Blue Babe pond saw using Cox chipper chain. 3. Close-up of Salem Equipment headrig mounting two saws on single arbor with feed chain located between the saws. At top right is 1 h.p. U.S. brake-equipped gearhead motor powering the electric setworks which moves both saws simultaneously. This motor, driving through roller chain, rotates shaft (shown beneath, and at right angle to, feed chain) moving saw tables equipped with limit switchgear shutting off current when tripped by any of the associated cams. A limit switch and cams are shown at right near bottom of frame. 4. Start of second and final cut on this log. It will leave the headsaws as three cants. 5. Split-roll 4 x 42" edger built by Salem Equipment Co. and powered by 100 h.p. Wagner motor. The 2" cants are processed at left side of edger and 4" cants on right as shown here. Top rolls of the 4" side are equipped with total of three air cylinders—one on infeed roll, one on outfeed roll, and the third connected to both roller arms to function as air-cushion shock absorber. 6. Elevator brings finished load of lumber down to ground-level pull-up chains taking the load out to carrier pick-up area.

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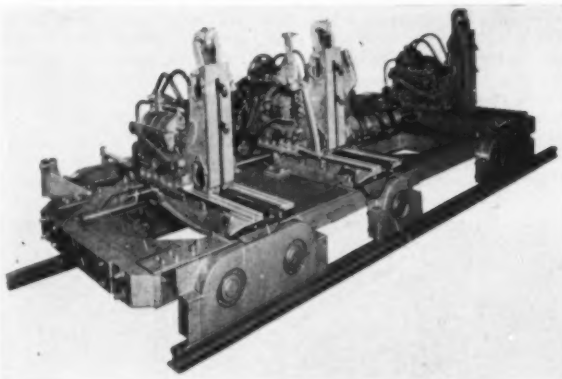

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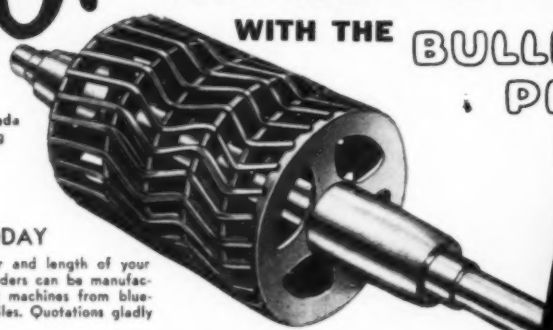

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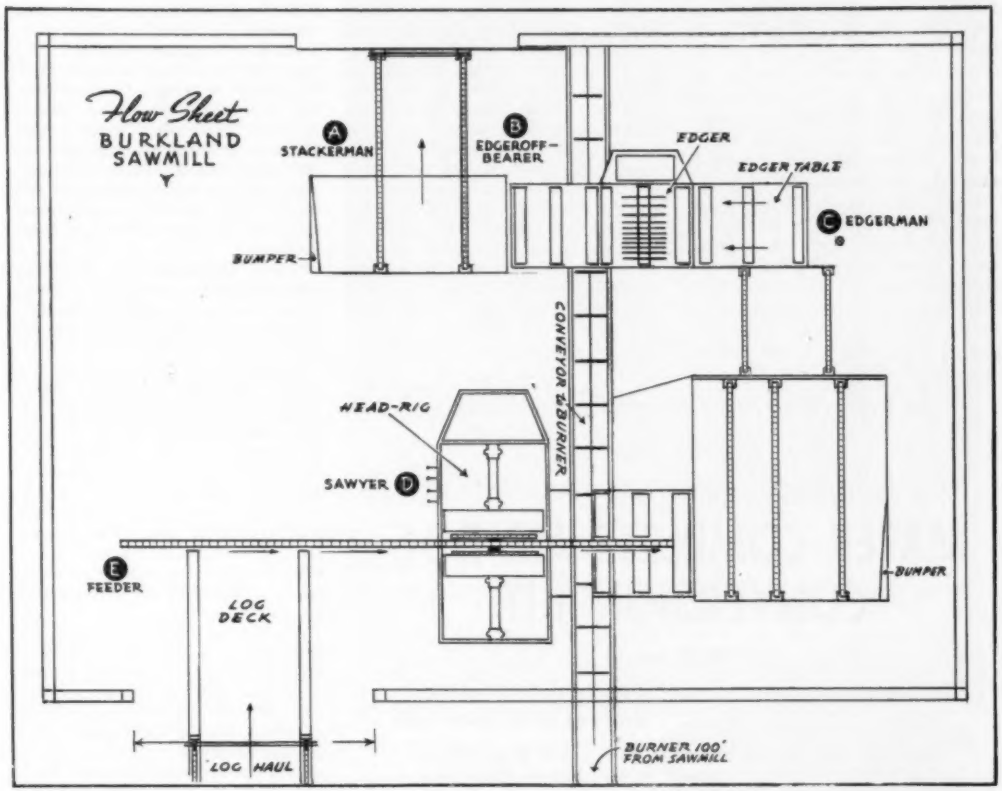

lift, from discharge end of which logs drop to a sloping log deck where they roll against a pair of air-operated stops or against logs already in position against the stops. From the stops logs move singly to the "carriage", enroute passing over an air-operated cradle which raises and lowers by foot-actuated air controls. This cradle has two small rubber tires mounted a few inches apart on axles parallel to each other. These tires bear against the log for either of the cradle's two functions—lifting the logs to the "carriage" and holding a log up off the deck, thus providing support of minimum friction so the operator can roll the log to optimum sawing position.

Gerlinger lumber carrier awaiting as the load of studs moving on the chains arrive at loading point. Note post-mounted chain control switch within reach of carrier operator.

The so-called carriage in this mill is in reality a feed chain riding in channel iron; this chain is endless, reversible, and has lugs 9 ft. apart. Logs moving to feed chain from the cradle set on top edges of the channel iron, in which position the log is engaged by a feed-chain lug which slides the log along channel iron to and past the headsaws, powered with a 150 H.P. motor.

For the first cut on each log the two headsaws are positioned by head sawyer to slab two opposite vertical faces, both cuts made simultaneously as feed chain propels the log past the saws. With completion of first cut the sawyer brings the slabbed log back between the saws, by reversing feed chain, ready for the second cut. He quickly repositions the saws, moving them closer together for the second and final cut.

All logs are converted to cants at headrig, the canting combination dependent on size of the individual log. Any of three combinations of

thickness are used for cutting cants —a log will be cut into one 4" and two 2" cants, or three 4", or one 4".

As the log clears the saws on the second cut, the resultant wane-edge cants move by power rolls to transfer taking them to an edger where both 2" and 4" cants are converted 2x4s and cutting some 2x2s.

Stock from the edger moves by live rolls onto transfer leading to side of the mill floor where it is stacked into carrier loads on an elevator which is powered by 3 h.p. Sterling gearhead. As the load level builds up with each additional course, the stackerman lowers the elevator sufficiently to bring top of load to optimum loading level. Upon completion of the load, it is lowered to ground level where the carrier blocks supporting the load come to rest on transfer chains taking the entire load on past the mill for subsequent pick-up and removal by the company's Gerlinger lumber carriers. This load transfer, with capacity for 3 carrier units of 8 ft. lumber, has dual controls, one set post-mounted for carrier operator at end of transfer where the carriers pick up the loads and the other set on the mill floor for operation by stackerman.

Burkland Lumber Co., a partnership organization, is owned and managed by three brothers—Carl, Donald, and Bradley Burkland. Key operating personnel includes Herb Schneider, stud mill foreman; Irving Branch, salesmanager; Brutus Ashcroft, scaler-log buyer; Alex Johnson, yard and planing mill foreman; Jim York, head filer; and Lawrence Oswalt, master mechanic and head electrician, to whom is credited much of the stud mill's functional success.

Salem Equipment Co. built the plant's unique circular headrig, edger, and the auxiliary air-controlled equipment such as stops and cradle on the log deck.

Operating in conjunction with the 2-saw Salem Equipment headrig is a most effective and unusual electric set works developed by Mr. Oswalt. He describes it as "nothing more than a pair of limit switches, traveling with a shifting saw table, working against cams mounted on a shaft that rotates to bring the desired cams into functional position to actuate the limit switches for positioning to desired spacing between the saws".

A brake-equipped 1 h.p. U.S. gearhead motor powers the setworks through roller chain driving a shaft with right hand thread on one end and left on opposite end. While changing the set, both saws move simultaneously for either of the 3 setting positions—the saws 4", 8⅔", and 12⅔" apart for the respective positions, allowing ⅛" kerf per saw for the multiple-cant cuts.

Except for the setworks, the entire headrig unit, including feedworks, receives its power from 150 h.p. Fairbanks-Morse motor. Power application to the feed chain is by belt from this motor to a Corley 4" feedworks.

The Salem Equipment edger, a 4x42" split-roll machine powered by 100 h.p. Wagner motor, has air-controlled infeed and outfeed top rolls. The hook-up of cylinders to rolls will be of interest to most all operators using, or considering using, air in their plant.

Two-inch cants are processed at one side of the edger, with all cuts at 4" intervals except one which cuts out 2x2s. The 4" cants go through other side of the machine where the saws are set at 2" intervals to cut only 2x4s. Only rolls of the side processing the thicker cants are air-cylinder equipped.

Following installation of an air cylinder on each top rolls on this 4" side problems arose through a slamming action of the rolls. Several methods were tried to smooth out

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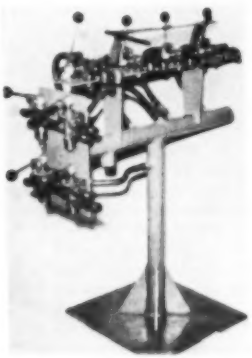

Manifold has separate lever operated valve control for each dog, also multiple valve actuator.

Conversion Kit mounted on knee. Taper cylinders available.

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this action, according to Mr. Oswalt. Satisfactory results were finally obtained by adding a third air cylinder, a double-acting unit which is not connected with the air lines. The two air ports of this cylinder, which normally would be connected to air supply lines, were joined together by a short pipe equipped with regulating valve. This cylinder is hooked to arms that activate both top rolls, the third cylinder functioning as a shock absorber. As either of the top rolls are lifted, the piston moves within the shockabsorber, thus routing displaced air from one end of the cylinder through the valve-equipped pipe to the other end of this same cylinder, thereby providing a shock absorbing air-cushion action to the air-operated top rolls.

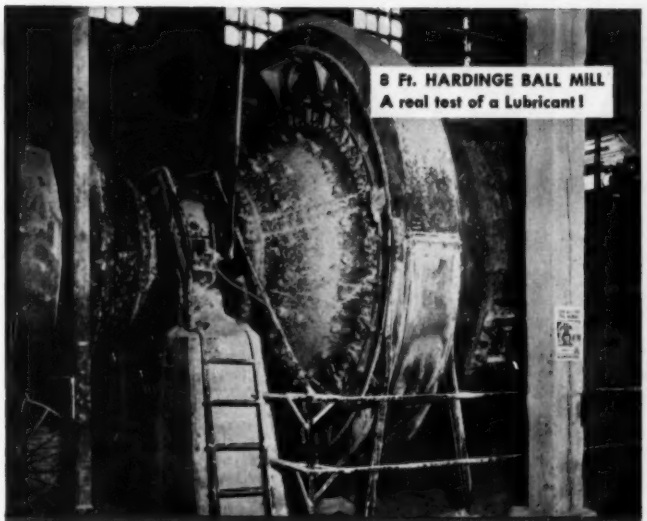
One compressor, a Schramm powered by 5 h.p. Wagner motor, furnishes air under pressure for all of the plant's air-operated equipment —log stops, canting cradle, top feed rolls on edger, mill whistle, and for clean-up work.

Wood for emergency power generation

As the first step in determining feasibility of using waste wood from sawmill in vicinity of Roseburg, Ore., for power generation, an inventory has been made to ascertain the availability and volume of this wood material in the area.

The survey, made by personnel of Oregon Forest Products Laboratory—J. R. Stillinger, J. R. Pfeiffer, and S. Corder, covered 45 sawmills within a 30-mile radius of Roseburg which cut 40M feet of lumber per day, or more. The report of the findings discloses per-day production of 2481 units (200 cu. ft. per unit) of by-product wood which would be available from these mills for power generation purposes. This amount is in addition to the wood materials (1) sold for fuel or remanufactured into products, (2) used for steam generation, and (3) potential volume suitable for use as pulp chips. Sawmill by-product wood available for power generation represents 62 percent of total potential volume of wood waste from mills included in the survey.

According to the report, 5.9 per cent of this total is absorbed by local fuel market or remanufactured into broom handle blanks; 11.7 per cent utilized at plants for steam production to operate headrigs, dry kilns, etc.; and potential volume suitable for pulp chips represents 20.6 per cent of total by-product wood from the surveyed mills.



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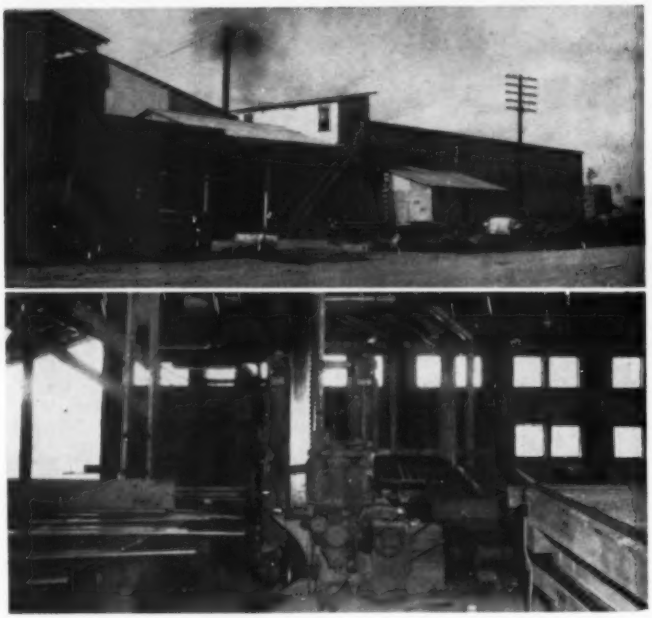

Top: These latest type Moore Dry Kiln Co. automatically controlled cross-circulation units handle the large volume of lumber for the big planing mill. Bottom: This Yates V-54 band re-saw is set between two conveyor tables furnished with Moline Malleable chain.

Down near the seacoast of South Carolina where the Santee-Cooper hydro-electric project creates Lake Moultrie alongside Francis Marion National Forest, the Flack-Jones Lumber Company has one of the most highly mechanized labor saving planing mills in the southeast. The company operates three good stationary sawmills and keeps a half-dozen portables in the woods.

The company started to clear ground at Moncks Corner for a sawmill and planing mill in October, 1948. The planing mill itself is a steel structure measuring 80 by 200 feet plus an added shed for the accommodation of railroad spur and cars to permit uninterrupted dry conditions for shipping. The entire site was well prepared, with the planing mill itself raised above ground level by a five foot fill. The fill being paved after settling, this provides the planing mill with an elevated floor to facilitate receipt and shipping of lumber.

The new sawmill erected at the site is equipped with a 6-foot Wheland band mill headrig with a carriage equipped with air dogs and other air accessories. Behind the headrig is a 6-foot band Prescott re-saw. The sawmill is run by a steam driven 350 h.p. Allis Chalmers engine. Slabs pass through a Wheland slasher to a new Harvey chipper type hog. Most of the chain comes from Moline Malleable Chain Co., and conveyors from B. L. Montague Co., Sumter, S. C.

From this sawmill and other sources, green lumber is passed through a 20-foot multiple saw undercut trimmer. Back of the trimmer is a 230-foot green chain that handles an average 115M feet one day, or a recorded 72M feet on a 5-hour Saturday morning.

After being drawn from the green chain by width and length (and thickness) the lumber is moved in bunker lots for drying in the modern Moore Dry Kiln installation by one each of Ross and Hyster straddle trucks, and two Ross and one Hyster lift trucks.

When the green lumber has been pulled from the sorting chain, it remains on sticks without physical (man) handling until taken down by the Moore tilting hoist in the planing mill. This device averages 60M feet in 10 hours. The tilting hoist serves a Yates feed table that in turn serves an S. A. Woods #412 machine. Should there be any resawing to be done there is a Yates V-54 band resaw fed by a Moore mechanical swede. The lumber feeds through the planer thence back along a 160 foot conveyor table equipped with Moline Malleable chain that parallels the indoor railroad car loading spur. Parallel with it is a similar table feeding back the reverse direction to the resaw, which is located at the platform end adjacent to the planing machine. Either table may be serviced from the end away from the equipment; or receive stock via the planer.

Four railroad cars may be loaded inside along the finished lumber table. The lumber is given final grading here.

Every installation in the planing mill is driven by an individual electric motor, with current furnished by the Santee-Cooper hydro-electric project.

The sawmill and dry kilns are served by an ultra modern fuel house measuring 40 feet high by 42 feet long by 24 feet wide, with a belt conveyor for each of three 250 h.p. Dutch oven equipped 135-lb. return tube boilers.

C. S. Jones is manager of Flack-Jones Lumber Co., and G. R. Blanton in charge of the Moncks Corner plant. The company mill at Ridgeville, S. C., produces 70M feet per day and is equipped with Wheland air-carriage.

G. R. BLANTON, manager of the Flack-Jones Lbr. Co. plant at Moncks Corner.

More wood from small holdings

The challenge of attaining greater forest growth on small timberland holdings under 5,000 acres, other than farm woodlots, was sketched by Art Greeley of the Pacific Northwest Forest Experiment Station at the well-attended December meeting in Tacoma, Wash. of the Puget Sound section of the Society of American Foresters. Such acreage in the state of Washington alone is approximately 7.3 per cent of the total commercial forest land acreage in the state, while the log scale volume on such lands is less than 1 per cent of the state's total. The growth potentials of these favorably located lands in the state have been estimated as 1.5 billion b. f. per year minimum.

Bill Tinney of the West Coast Lumberman's Association said we are faced with the necessity of changing the traditions of a whole generation to get maximum timber harvest from such tracts.

Lumber Company Wins Transportation Tax Case

A federal court in Oregon has ruled that the government cannot collect a three percent transportation tax on logs that were truck hauled to the Santiam Lumber Company's sawmills at Sweet Home and Lebanon, Ore. The court ordered the government to refund some $37,000 transportation tax which the company had paid under protest. The court upheld the company's contention that the log haulers were in effect on the company's payrolls, and that therefore that a transportation tax could not be imposed on a firm transporting its own property.

S. E. Gange Dies

S. E. Gange, one of Tacoma, Wash., best known lumber manufacturers, died recently at the age of 68. He had lived in Tacoma for 62 years. His company, the Gange Lumber Company, was one of the first in the Northwest to install the Swedish type log gang. He sold the mill in 1944. He had been ill for a long time.

National Forest Acreage Being Planted

More than 4,000 acres of national forest land in the Pacific Northwest region of the U. S. forest service are being planted with trees this fall and winter, according to regional officials in Portland. An additional 2,000 acres are being seeded by helicopter.

GET A FREE Tuffy® SLING AND PROVE TO YOURSELF IT'S MORE FLEXIBLE!

Yes, here's your chance to see for yourself the braided wire fabric of which TUFFY Slings are made. Tie it in knots, kink it—then see how easily a Tuffy sling can be straightened out without material damage.

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HOW Tuffy SLINGS ARE MADE

Scores of wires are stranded into nine parts, then machine woven into an interlaced wire fabric. This braided fabric gives extra safety and enduring strength. Even cutting one of the 9 parts does not result in stranding of the sling.

11 TYPES—PROOF TESTED FOR SAFETY There are 11 different types of Tuffy Slings, each one proof-tested to *twice* its safe working load. And the safe working load is plainly marked on metal tags on each sling. Also, Union Wire Rope engineers will help work out special sling problems. If you have your own rigging loft, Tuffy braided wire fabric is available by the reel.

FREE SAMPLE—MAIL COUPON

To show you the difference between TUFFY Braided Wire Slings and ordinary wire rope slings, we have made up a quantity of 3-foot slings. We want you to have one so that you can test it and prove to yourself that TUFFY Slings really are better. Mail the coupon below today for yours.

UNION WIRE ROPE CORPORATION
Specialists in Wire Rope, Braided Wire Fabric and High Carbon Wire
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Gentlemen: Please have my Union Wire Rope fieldman deliver me a FREE Tuffy Sling.

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Lumber plant engineering as it applies to FIRE PREVENTION and PROTECTION

by
J. M. WHITE and C. H. TILTON, Jr.
U. S. Epperson Underwriting Company

The drafting board is the starting point for good fire prevention and fire protection engineering. Lumbermen who are contemplating construction or alteration of any plant buildings would do well to remember this.

The manufacture of lumber is a special hazard occupancy. The primary methods by which fires in lumber manufacturing plants will spread are:

1. Fires burning through lightly constructed floors.
2. Wall openings and windows.
3. Unprotected floor openings such as stairs, elevators, conveyors, chutes, ducts, pipes and light wells.
4. Fires will spread from building to building due to (a) Insufficient clear spaces. (b) Unprotected wall openings. (c) No fire walls where required. (d) Going over short parapets and igniting combustible roof or walls.

Therefore, building design, alteration and construction should take all these factors into consideration.

Another very important factor in the design of sawmills and other lumber manufacturing units is the proper and efficient handling and removal of refuse. Adequate blowpiping and conveyors practically engineered and installed are very important.

It has been the trend of some of the lumbermen of the northwest during the past few years to lean towards construction of all steel mills with concrete floors.

If possible, install only the best in new machinery. If secondhand machinery is used, be sure it has been thoroughly overhauled and in good operative condition before installing.

All power and lighting electrical installations should be designed, laid out and installed to comply with all provisions of the National Electrical Code. These installations should be made by qualified engineers, electrical contractors or qualified electricians.

In the interest of good fire prevention, it would be well for the lumbermen to contact their insurance company and submit plan layout of plant buildings to be constructed or altered before going ahead.

Boiler houses, fuel vaults, and dry kilns should be well clear spaced from all other building units. Boiler houses and fuel vaults of brick or reinforced concrete walls and all steel roof, and dry kilns of same type of walls but with reinforced concrete roofs and all metal doors are sound investments at all lumber operations.

On larger plants, private fire fighting systems are advisable.

Where outside hydrants are involved, the underground system are advisable.

Where outside hydrants are involved, the underground system should never be less than 6″ main and, preferably, circulating.

Plants having outside fire hydrants and interior of buildings protected by automatic sprinklers should have two separate sources of water supply.

One of the most important features in the laying out of any sprinkler system is the water supply for that sprinkler system. The proposed water supply should be completely investigated before going ahead and installing a sprinkler system. No sprinkler system can be any better or more efficient than the water supply available.

It is also desirable to install inside hydrants with 1½″ hose and ⅝″ or ¾″ nozzles.

Approved chemical fire extinguishers should be provided in all buildings.

Wherever possible, in plants that are sprinklered, it is advisable to have central supervisory controls of the sprinkler system.

Wherever possible, open refuse fires should be kept at a minimum of not less than 250′ from all yards or buildings. Where standard refuse burners are used, the clear space may be greatly lessened.

Refuse conveyors leading from the mill to the refuse fire should be of all steel construction. Where standard refuse burners are installed, the shell should be of good sheet steel and well designed so as to give complete combustion. The tops of these burners should be adequately screened.

Plant layout should be such that lumber in the yard will be well clear spaced from all plant buildings, preferably, not less than 250′ from any plant building where possible.

Consideration should be given to the proper handling, storage, and use of flammable liquids. They should be stored in separate detached fire resistant buildings where possible. It is always good practice to use those flammable liquids with flash points above 100°F. when possible.

These special hazard areas should be properly safeguarded either by the installation of sprinkler systems or completely isolated from other plant operations. First aid equipment such as chemical fire extinguishers, inside hose hydrants, etc., should be provided for these particular operations.

Another World Tour

George G. Cobean, President of Bulkley, Dunton Paper Co., S. A., has been on a trip via Pan American Airways, to Hawaii, Wake and Guam, and Manila, P.I., where he will spend several weeks visiting the Bulkley, Dunton Far Eastern subsidiary company, located in that city.

After leaving Manila, Mr. Cobean expects to visit his company's sales representatives in Hong Kong and Japan.

During the past five years, alone, he has made four trips to most of the South and Central American countries, three trips to many European countries (including a month spent in Moscow), eight months visiting all Far Eastern countries of Asia, during which trip he circled the globe. He has crossed the equator 28 times.

The Bulkley, Dunton export organizations, headed by Mr. Cobean, have sales offices on every continent. They represent, upon an exclusive basis for export, a group of America's leading paper manufacturers.

The Nashville Hardwood Flooring Co., Nashville, Tenn., lost almost a million feet of lumber and its 3-story office building in a $500,000 fire that also destroyed 11 dry kilns in late November.

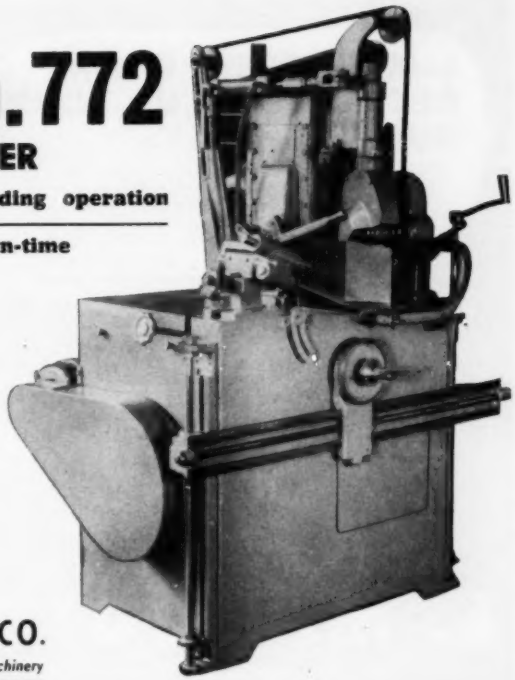
(AIR OPERATED SHIFT)

HANCHETT No. 772

CIRCULAR SAW SHARPENER

ups production | **simplifies grinding operation**

insures accuracy | **decreases down-time**



NEW AIR POWER in shift mechanism of grinding head results in smoother operation and reduction of moving parts to an absolute minimum.

PRECISION-BUILT for rip, crosscut, slasher, and inserted tooth saws from 20" to 72" in diameter. The 772 is constructed for heavy duty service in sawmills, pulp and paper mills, veneer, plywood and woodworking mills of every kind.

772's are delivering finest quality work under heaviest grinding schedules in the world's most modern sawmills. For full details, write for Bulletin No. *L-12*.

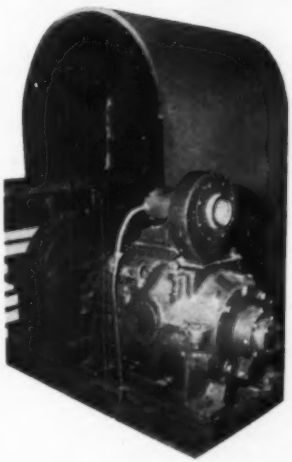
Remember—HANCHETT Builds *ALL* Sizes and Types of Circular Saw Sharpeners.

HANCHETT MANUFACTURING CO.

World's Largest Manufacturer of Saw Sharpening and Knife Grinding Machinery

Big Rapids, Michigan **Portland, Oregon**

Another HILLMAN ELECTRIC DRIVE



VARIABLE SPEED BARKER FEED
at CANADIAN FOREST PRODUCTS, LTD.
VANCOUVER, B. C.

Both the in-feed and takeaway conveyors serving the Hansel Hydraulic Ring Barker are powered by variable speed, reversible drive motors. These motors are operated by a single operator's station which provides synchronized speeds over a wide speed range and also separate operation of either motor when necessary. The instant, fingertip control of the "All-Electric" barker feed drive assures the right speed for each log every time.

C. KIRK HILLMAN CO.

MANUFACTURERS OF ELECTRIC DRIVES FOR:

Sawmill Carriages • Planer Rolls • Veneer Lathes

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L-M ELECTRIC CHAIN DECK SAWS CUT YOUR BUCKING COSTS...

With the new Wide Kerf Chain, L-M Electric Deck Saws are cutting 40-inch logs to length in less than 60 seconds per cut! Photo shows efficient cut-off operation at the C. D. Johnson Lumber Corp., Toledo, Oregon. L-M Saw in this operation is mounted on a movable carriage, has an 88-inch bar and hydraulically-controlled lift.

Pond & Deck Saws • Log Splitters • Chains, Bars for All Chain Saws

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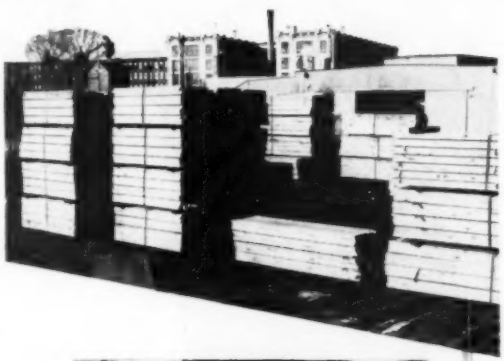
401 S. E. CLAY ST. • PORTLAND 14, ORE. • *Phone* VE 3146 • *Cable Address:* "LMEQ PORTLANDORE"

SAVE TIME AND MONEY

handling your lumber, too!



In every lumber yard to use it, Stanley Steel Strapping has quickly paid for itself times over — by cutting handling time and costs—guarding against pilferage—adding speed and convenience to the whole operation.

With Steel Strapping, bundles of lumber can be stacked higher, saving space. Tallying is easier, more accurate. Selection for delivery to job can be made more quickly. Uni-tied loads are more easily rolled off trailer at job site —remain intact, with less chance of pilferage.

In essential industries and on defense production, Steel Strapping is conserving time, labor and equipment. When the present emergency is over you can make these savings on your shipments. The Stanley Works, Steel Strapping Division, 205 Lake Street, New Britain, Conn. Offices in principal cities.

Stanley Steel Strapping Tools apply strap quickly and easily. Tools are light in weight, yet ruggedly built to withstand continuous usage.

STANLEY

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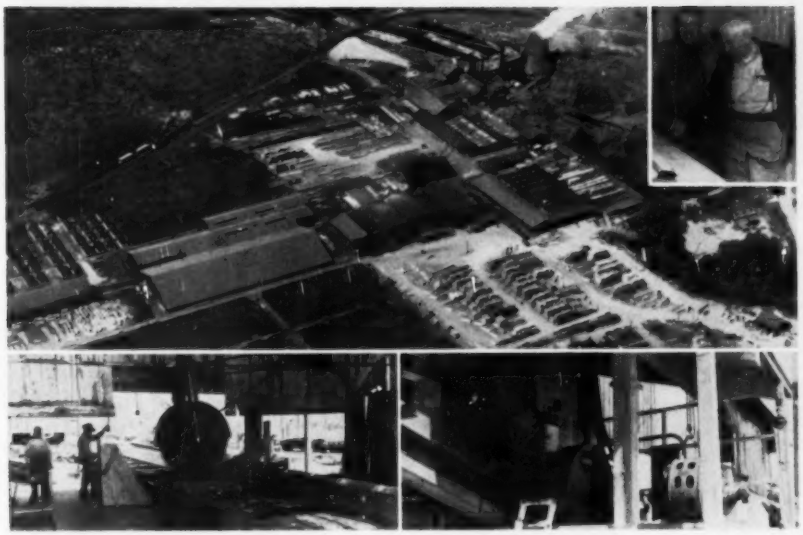
STEEL STRAPPING AND CAR BANDING SYSTEMS

HARDWARE • TOOLS • ELECTRIC TOOLS • STEEL STRAPPING • STEEL

How the Valsetz Sawmill was Overhauled and Modernized



Air view of Valsetz Lumber Company's sawmill, Valsetz, Oregon. Below — left. One of two cut-off saws supplied by M. A. Ward Construction Co. Right, Sumner chipper installed in the new chipping plant. Inset, Bert Thomas, Manager, and Harry Jenkins.

Left to right—M. E. Rose, first assistant electrician; Orville Danger, millwright; W. J. Brownjohn, mill supt.

An interesting construction job was recently completed at the Valsetz Lumber Company mill, Valsetz, Oregon. This fine sawmill was constructed in 1920. Bert Thomas, General Manager, engaged Harry Jenkins, well known sawmill man, formerly manager of Jones Lumber Company, to assist him in an overhauling job. Mr. Thomas also engaged the M. A. Ward Construction Company to assist them in the construction work and necessary designing. M. A. Ward has built a number of new mills besides doing many overhaul jobs in the northwest.

The job was started on December 26, 1950, and was completed on August 3, 1951, with practically no down time during the construction.

All of the timbers in the main sawmill and storage shed #6 were replaced. The entire north wall of the main sawmill was also rebuilt. All the blower systems were relocated to facilitate more efficient operation in and around the sawmill and power plant. The roll cases were in excellent shape but were changed from flat belt style to motor driven speed reducers. All the timbers holding up the 44′ gang trimmer were replaced and two new swing air operated trimmer saws were added, one 64″ at the end of the main roll case and one 62″ behind the edger. Most of the underpinning timbers in the main sawmill floor were replaced. Additional bracing was placed under the band mill to eliminate any possibility of sway. Also a new gang cant transfer and roll case as well as a new swinging cant cut off saw were installed. These were designed and manufactured by the M. A. Ward Construction Company. All trusses in the filing room were re-adjusted and the room was re-roofed. The main trimmer was raised and releveled. It took four 70 ton jacks to raise each end of the trimmer posts.

A new catwalk was constructed full length of the mill.

A new edger foundation was constructed with a new 12″ steel H-beam being placed under the edger. Many belt and friction drives were replaced with motor gear driven drives. About 25 new gear head motors were installed on the transfer, conveyors, roll cases and edger feeds. Also they reset and lowered to ground floor level the steam cylinders and rocker shafts.

A complete new chipping plant was added with a Sumner chipper. A complete conveyor system from the main mill floor to the chipper and from the chipper to the cars was constructed. All chips are being supplied to Crown-Zellerbach Company. Forty units of chips are cut daily.

The Valsetz Lumber Company have developed a unique dry kiln made of wood that is comparable to a masonry dry kiln but much cheaper to build.

The structure consists of salvaged logging railroad rails cut to length placed on end in concrete for studs welded to cross members for rafters. The ventilators, baffles and sprinkler system hangers are all welded to the steel structural member.

The side walls and roof consist of three layers of 2x6 T&G with insulation between each layer. The side walls are fastened to the upright rails by U bolts and a wooden pilaster that can be removed. This makes it possible to repair or replace any part of the walls or roof if necessary, without impairing the

structure. The kilns are spray painted at least once a year with Moore Dry Kiln paint.

The company recently added a small log mill where they cut logs as small as 6 inches in diameter that are brought in from a relogging operation. Cants are sent by conveyor to the large mill for further manufacture.

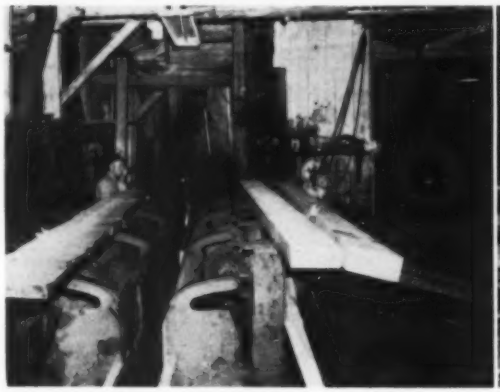
Equipment in the main sawmill includes a 10 ft. Allis-Chalmers bandmill using a trailer carriage with 78-inch blocks and taper knees. Timbers up to 65 ft. are cut on this head rig. They also have a 12-inch Allis-Chalmers edger and a 40-ft. automatic trimmer plus a 6-ft. horizontal resaw. In the remanufacturing plant they have a Sumner 6-inch pony edger, a 66-inch upright resaw, a 26-ft. Sumner pony trimmer and a 14x48 Wickes gang. The planing mill has 4 Stetson-Ross planers, a tilting table resaw, 2 stickers and a band rip saw.

Valsetz Lumber Co. comprises one completely contained unit with 25,000 acres of timber and tree farms. They have their own fire department, school, church, 200 houses and bunk houses for 200 men. All their cut over land is dedicated to growing trees. Herbert A. Templeton, well known Portland lumberman, is president.

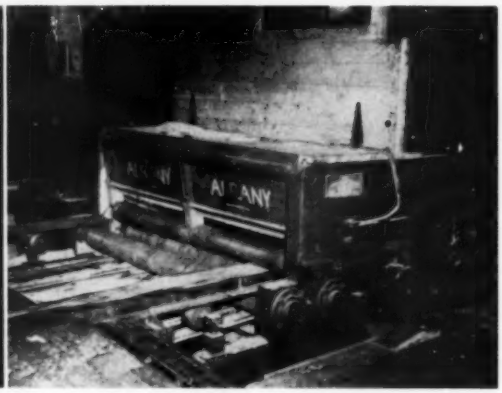
Burned mill to be rebuilt

The Peshastin Lumber & Box Company's sawmill which was destroyed by fire in November will be rebuilt, according to president E. L. Sawyer, who said it likely would be five months before the mill could get into operation. The loss was estimated in excess of $300,000. The planing mill and dry kilns did not burn.

SAWMILL MODERNIZED



An air-controlled Sawyer Machine Works air-controlled line-up table, receiving stock from headrig (right) and resaw run-around (left), feeding two and four-inch cants to McDonough vertical band resaw.



Albany Machine & Supply Co. 6 x 72-in. self-aligning roller bearing double edger. The near half of this 8-saw edger processes stock coming directly from headrig and resawed stock goes through the far side of edger.

Several improvements have been recently made at the J. Herbert Bate Lumber Co. plant in Wallowa, Ore. This plant has been converted, since the war, from steam to electric power.

A new Albany 8-saw double edger, built by Albany Machine & Supply Co., Albany, Ore., went into operation last May, having replaced an obsolete 6-saw edger. This new 6" x 72" roller bearing machine, direct powered by 100 h.p. G.E. motor, processes stock from resaw in one side of the edger and stock from headrig at the other. Two edgermen operate the machine, one to each section. The edger has Coleman type feedrolls powered by a Westinghouse gearhead motor.

The resaw, a McDonough band unit which processes most of the plant output, is operated by just one man. Stock arrives from the headrig, in form of cants, and from resaw run-around. An air-controlled feed and line-up table, made by Sawyer Machine Works, Eugene, Ore., positions the stock ahead of the resaw and delivers each piece to air-controlled feedrolls. The resaw unit has four feed speeds.

In June a new Stetson-Ross 14-knife matcher went into production in the plant's finishing department. This unit equipped with Stetson-Ross tilting hoist operates at speeds up to about 700 l.f.p.m. The top cylinder is powered by 130 h.p. motor and bottom cylinder by a 65 h.p. motor.

Installation of an 800 h.p. Garrett & Shafer water tube boiler and 750 k.w. G.E. turbo generator not only provides electric power for the plant but also results in additional supply of steam which, according to Plant Superintendent William Gamble, will facilitate holding more accurately to dry kiln schedules and consequently increase output of kiln dried lumber.

Another recent addition to the plant facilities was installation of a set of log jaws for holding long logs securely while cutting them to length with an electric powered chain-type deck saw.

Wear of this organization's log-haul from pond to mill deck has been minimized by hand surfacing bottoms of the log chains and top of riding strips. Abrasion resisting welding rod (Stoody) was used as surfacing agent.

Changes made at this Bate plant in headsaw tooth spacing have proven advantageous, according to Mr. Gamble. In the past a 1¾" tooth space was maintained on the 13 gauge band saws operating on the mill's 8 ft. headrig. This spacing was increased to 2". Further increase in spacing proved of advantage. Now standard headsaw tooth spacing at this plant is 2¼" for summer operation and 2½" for winter. These spacings have resulted in faster speed, and keeps free from "saw running" in frozen logs.

New!

inserted tooth mill saws...with stabilizing holes

ATKINS

"Silver Steel"

Another Great

FIRST by ATKINS

THE ORIGINAL AIR CONDITIONED SAW!

Atkins does it again! . . . Extends its leadership by introducing the first INSERTED TOOTH MILL SAWS WITH STABILIZING HOLES! And they are available in all patterns for head rigs and edgers!

The stabilizing holes relieve rim strain, keep the shoulders straight, keep bits in better alignment, air-condition both the rim and body of the saw.

But that's not all! These holes blow away dust—keep the log free from dust that freezes to log and board when conventional saws are used. Upkeep is less, such as hammering and tensioning—and this revolutionary new saw requires less horse power to operate.

STRAIGHTER CUTS!

LESS TIME OFF!

MORE PRODUCTION!

BETTER LUMBER!

Use—Don't Abuse—Fine Tools!

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Patent Applied For

Secretary-Manager W. W. Woodbridge, left, hands the gavel of authority to W. H. McLallen, Vancouver, B. C., shingle manufacturer who was re-elected president of the Red Cedar Shingle Bureau at the organization's 35th annual meeting held in Seattle on December 7.

Shingle men talk trade promotion

One of the highlights of the recent annual meeting of the Red Cedar Shingle Bureau, Seattle, was the discussion relative to the need of more intensive trade promotion activities as a means of obtaining for the industry a greater share of the roofing and side wall business. Figures were presented showing that whereas in 1940, 36 percent of the roofs built in the U. S. were covered with red cedar shingle, in 1950 this percentage had dropped to 10 percent.

Statements were made that while the cost of shingles alone may be higher than competing products, the overall cost is no greater. But it was pointed out this fact needs to be widely advertised. Also speakers declared the manufacturers must treat their customers right, be able to deliver shingles promptly "and not put the low priced orders at the bottom of the order file when business is booming."

The suggestion was made that the Bureau should launch a half million dollar trade promotion program.

Attention was called to the fact that the Bureau's chief inspector, Fred Monte, has served the industry for thirty years and has traveled more than a million miles serving western shingle mills.

The Bureau now has a membership representing 662 machines which was a gain for the year.

All the officers were reelected as follows:

W. H. McLallen, president, Capilano Timber Co., Ltd., Vancouver, B. C.

Earl S. Wasser, vice president, Rainier Mill Co., Rainier, Oregon.

W. W. Woodbridge, secretary, Seattle, Washington.

Virgil G. Peterson, treasurer, Seattle, Washington.

Trustees: Dale Craft, Willapa Cedar Sales Co., Raymond, Washington; N. A. English, Northwest Cedar Products, Ltd., Vancouver, B. C.; R. H. Farrington, Super Mill Co., Everett, Wash.; N. C. Jamison, Jamison Lumber & Shingle Co., Everett, Wash.; J. A. MacKenzie, Canadian Western Lumber Co., Ltd., Fraser Mills, B. C.; J. A. McCrory, Seattle Cedar Lumber Manufacturing Co., Seattle, Wash.; R. D. Mackie, Mackie Mill Co., Markham, Wash.; Charles Plant, MacMillan & Bloedel, Ltd., Vancouver, B. C.; Fred A. Roles, R & R Shingle Manufacturing Co., Cottage Grove, Oregon; C. C. Rose, Saginaw Shingle Co., Aberdeen, Wash.; E. R. Scott, Quality Shingle Co., Edmonds, Wash.; Paul R. Smith, M. R. Smith Lumber & Shingle Co., Seattle, Wash.; H. V. Whittall, Canadian Forest Products, Ltd., Vancouver, B. C.; R. A. Wilde, Pacific Timber Co., Everett, Wash.

David Doud Heads Tacoma Club

David Doud, Defiance Lumber Co., has been elected president of the Tacoma Lumbermen's Club. He succeeds Vince Besinque of the St. Paul & Tacoma Lumber Co. The clubs new secretary is Tex Morrow of the Export Pacific Lumber Co.

The new officers were introduced at the Club's 32nd annual dinner, Hotel Winthrop, December 7, which as in previous years was attended by more than five hundred lumbermen from all parts of the Northwest.

Paul Smith presented the Tacoma Lumbermen's Club Paul Johns award to Ed Fornia and Chester Whitman. Mort Whitman accepted the award in the absence of his son Chester, who is in the service. An award was presented to O. Harry Schrader, Jr., Manager DFPI for his outstanding part in plywood promotion.

Suitable gifts were presented to the retiring officers.

The Tacoma Lumbermen's Club was started during World War I. It holds a luncheon meeting every Friday. Its two major annual events are the Tacoma Lumbermen's Club Northwest golf tournament in August and the annual banquet in December.

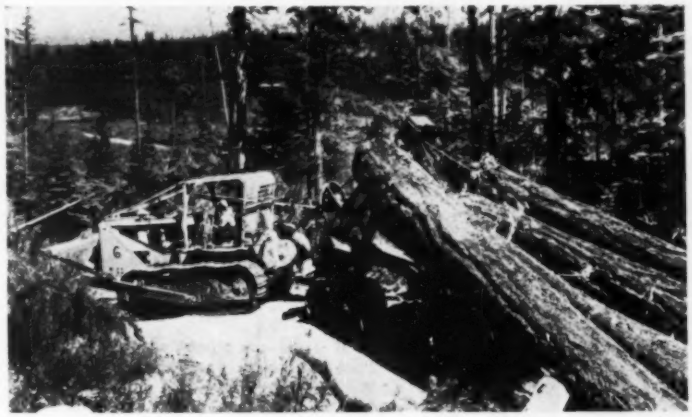
Following is a list of the Club's presidents since 1918:

Jack Buchanan	1918
Yale Henry	1919
Ernest Dolge	1920
Paul Johns	1921
J. M. Manley	1922
A. H. Landram	1923
Lee Doud	1924
J. G. Newbegin	1925
Frost Snyder	1926
J. G. Dickson	1927
E. W. Demerest	1928
Karl Kellogg	1929
Roy Sharp	1930
Phil Garland	1931
A. K. Martin	1932
G. E. Karlen	1933
Corydon Wagner	1934
Ralph Brindley	1935
E. G. Griggs II	1936
E. G. Rice	1937
James Dempsey	1938
Paul Billings	1939
Stors Waterman	1940
Cecil Cavanaugh	1941
Paul M. Smith	1942
Roderic Olzendam	1943
Charles B. Hurley	1944
Grant Hellar	1945
Robert Lloyd	1946
August Von Boecklin	1947
Norman Jacobson	1948
Wayne James	1949
Otto Webber	1950
Vince Besinque	1951
David Doud	1952

Trends In Sawmill

(Continued from Page 84)

ham, because of the special seal that protects the inner sections of the belting from abrasive sawdust and other destructive substances. A special educational program on two Dodge V-belts (that designed for normal use; and a special V-belt for special jobs) is now being carried on from headquarters of the Dodge Manufacturing Co., Mishawaka, Ind., as well as from dealers and distributors throughout the country. Basic uses of Dodge V-belts in the sawmill industry include drives for headrigs in small and medium mills; conveyor drives; and gang mills.



"Caterpillar Tractor"

Same Malleable Iron used in Both Products

PEORIA - MALLEABLE CASTING CO.

PEORIA, ILL.

PEORIA CHAIN CO. George E. Zweifel, Factory Rep.

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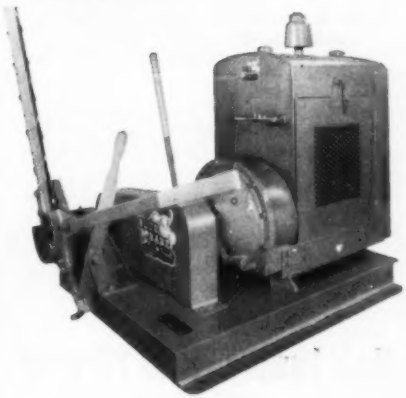
BLUE BABE Products

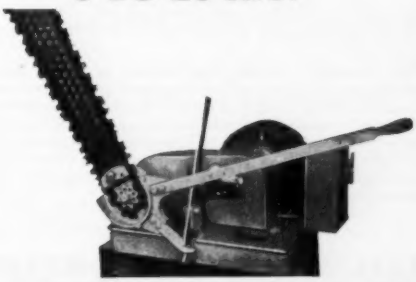
NORTHWEST MARINE IRON WORKS

"BLUE BABE"

POND AND DECK SAWS

5 TO 20 H. P.





Write for Details

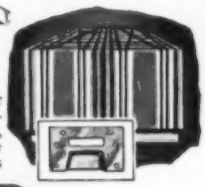
NORTHWEST MARINE IRON WORKS

DESIGNERS OF SAWMILL AND LOGGING EQUIPMENT

2316 N. W. 29th AVE. Industrial Division PORTLAND, OREGON

it's a FACT simple method tames damaging impact shock

There was a time when rigidly braced and free-floating loads would arrive at destination badly damaged. Left to shift for themselves, these loads more often than not would jam tightly at the doorways.



One of the worst carloads for jamming were skids of paper. Unloading had to be done by hand, ream at a time, until the doorway area was cleared. As a result, losses in time and money ran high.

Today, *Signode's Controlled Floating Load method* of product protection has stopped damaging load shift. The heart of this simple method is *Signode's Mechanical BrakemaN* which retards the movement of ladings on the car floor. Now doorways remain accessible. Damage to paper is reduced to the minimum. Cars can be unloaded by fast mechanical methods. Handling costs drop sharply.

it's a fact to remember

The controlled floating load method is one of four developed and perfected by Signode to protect ladings in transit. Many of Signode's 30,000 customers use them. Wouldn't you like to know *how* to use them efficiently to protect your shipments of *defense* or *essential* civilian products *today*—how to use them *tomorrow* when such reductions in costs become even more important in sales? Write,

SIGNODE

STEEL STRAPPING COMPANY

2616 N. Western Ave. Chicago 47, Ill.

Offices coast to coast. In Canada: Canadian Steel Strapping Co., Ltd. Foreign subsidiaries and distributors world wide.

this seal *means security in shipping*

THE HUSS CHRONICLE

From the files of

THE LUMBERMAN,, JANUARY, 1922

R. A. Long, of Kansas City, Mo., chairman of the Board of the Long-Bell Lumber Co., was elected chairman of the Board of the Weed Lumber Co., Weed, Calif.

A. H. Landram, salesmanager of the St. Paul & Tacoma Lumber Co., Tacoma, Wash., elected president of the Tacoma Lumbermen's Club.

The Booth-Kelly Lumber Company, Eugene, Oregon, moved its sales office from Eugene to Portland, Ore.

Ralph Angell who represented the Willapa Lumber Co., in New York City, left that company and organized the Babcock-Angell Lumber Co., with offices in New York and Portland, Ore.

The Wisconsin & Arkansas Lumber Co., purchased the properties of the Arkansas Land & Lumber Co., at Malvern, Ark., in one of the largest deals of its kind in many years. Arthur B. Cook, treasurer and manager.

F. S. Stimson, well known Seattle lumberman, dropped dead in his apartment.

The Rite-Grade Shingle Association was organized at a meeting in Seattle and N. C. Jamison of Jamison Lumber & Shingle Co., Everett, Wash., was elected as its first president.

S. D. Switzer of Wabeno, Wis., was elected president of the Northern Logging Congress at a meeting in Minneapolis.

The Nettleton Lumber Co., of Seattle opened an office in the Consolidated Realty Building, Los Angeles, Calif., in charge of L. R. Gaynor, Jr.

R. S. Shaw was made manager of the Kerry Timber Co., Portland, Ore.

So much for the past . . . In the Future, Try

Huss Lumber - Huss Plywood

HUSS LUMBER COMPANY

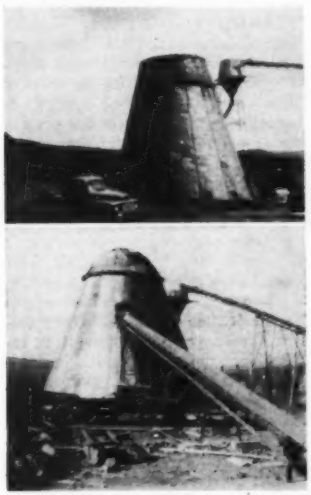
2301 North Racine Avenue CHICAGO 14, ILLINOIS

Super Swede is the **ONLY** power setworks that meters off a set **BEFORE MOVING THE LOG!** This hydraulic-electric setworks assures positive setting to specified dimensions; consistently micro-accurate to 1/32-inch. Enthusiastically accepted; highly endorsed.

MORE FACTS? ... *Just tell us size opening of your mill and cut per shift.*

CALVERT MACHINE SERVICE
BOX 26 **BORING, OREGON**

How Refuse Burner Was Enlarged



Top—The original Phelps burner installation. Below—Burner after it was enlarged.

The Pot Creek Logging & Lumber Co., Santa Fe, New Mexico, recently had an interesting experience with their refuse burner at its Taos mill. In 1950 they erected a 40x40 Phelps burner at their planing mill. The affiliated Black Lake Timber Co., Inc. installed a Mill Engineering and Supply, Swede gang mill which was designed by Carl Sundbolm of Seattle, Washington. The burner is used by both companies—shavings from Pot Creek Logging and Lumber, Inc. planing mill and refuse from Black Lake Timber, Inc. both go to the Phelps burner. Installation of the new gang mill made it necessary to increase the capacity of the burner but this turned out to be rather a simple matter. Phelps Bros. burners are constructed in panel sections so they can be expanded if necessary. This burner was expanded to 50′ in diameter by 40′ high. A 150 ft. steel conveyor was installed to carry refuse to the burner.

The timber being cut on the Swede gang mill is primarily Englemann spruce and white fir in 1″ boards, and Inland Douglas fir into 2″ dimension.

The operation is conducted at an elevation of 8,000 feet and logging operations are conducted at altitudes up to 11,000 feet.

The mill is located at Taos N. M. seventy-five miles from the end of the Santa Fe Railroad at Santa Fe, New Mexico.

Timber cutting operations of the Black Lake Timber Co., Inc. and of the Pot Creek Logging and Lumber, Inc. at Taos, New Mexico, exceeded 20 million feet last year. The operation of the Pot Creek Logging and Lumber, Inc. is three years old and the Black Lake Timber Co., Inc. has just gone into production, having started October 1, 1951.

George Lavender is president and general manager of the Pot Creek Logging and Lumber, Inc. and the Black Lake Timber Co., Inc.

Mr. R. M. Rounds is vice-president of both companies. Mr. Rounds is also connected with Rounds Trading Company and Rounds & Kilpatrick, San Francisco.

W. M. Bernardin is superintendent of Pot Creek Logging and Lumber, Inc. operations at Taos, New Mexico.

Douglas Fir Christmas Tree for Truman

High on a snow covered mountain slope in northwestern Oregon on a Bonneville power line right-of-way a thirty-eight foot Douglas fir Christmas tree was recently cut by Rodney O. Fety, chief forester for the Salem district of the Bureau of Land Management to be shipped to President Truman at Independence, Mo. The BLM press release regarding this tree stated that the expense of shipping the tree was paid by a few of the organization's employees.

HANDY CHAIN SAW CLAMP

Harry Conger, master mechanic, Associated Lumber & Box Co., Wilseyville, Calif., has devised a most ingenious and handy chain saw clamp for George Wiemers, head filer of the company, to use in filing the Cox chipper chains used on the Atkins electric deck saw at the mill.

The clamp is made of four pieces of plate steel. The inside pieces are machined so that, when the clamp is unbolted it comes loose easily. The clamp is mounted on a heavy bench. Supporting an adjustable pulley at one end and a crank at the other, is an eight foot steel bar. The crank is used to pull the chain through the clamp. The adjustable pulley makes for ease of operation. There are 10 bolts in the clamp proper, thus giving even tension on every guide.

George has been filing for Associated Lumber & Box Co. for some three years. He came to Wilseyville from Siuslaw Forest Products Co., Mapleton, Ore., where he was head filer, also. He started the filing game under H. W. Baggett, Yosemite Sugar Pine Co., Merced Falls, Calif., and later was a helper under Bill Bergstrom, Red River Lumber Co., Westwood, Calif.

George Wiemers, head filer, Associated Lumber & Box Co., Wilseyville, Calif., working on a Cox chipper chain saw for the Atkins electric deck saw, at the chain saw clamp designed and built by Harry Conger, master mechanic, Associated Lumber & Box Co. (A) shows the crank used in moving the chain through the clamp (B) shows the clamp itself, and the wrench for tightening the 10 bolts in the clamp.

The Georgia-Pacific-Johnson Consolidation

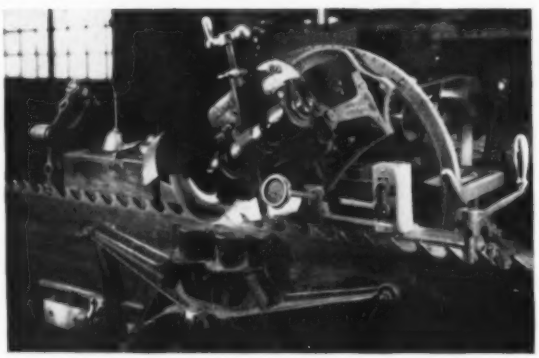
The terms by which Georgia-Pacific Plywood Co. acquired the C. D. Johnson Lumber Corp., are outlined in a special report to Georgia-Pacific stockholders by Owen R. Cheatham, Georgia-Pacific President.

The report states that the acquisition of Johnson's 900,000,000 feet of timber will increase Georgia-Pacific's timber reserves for its western plywood mills by about a fifteen to twenty years' supply on the basis of the company's present plans for its use.

According to the report, the purchase price for 100% of the Johnson stock totals $16,800,000. This sum has been provided for in part by a 14-month loan of $12,600,000 from the Bank of America, and in part by the sale of 126,000 shares of Georgia-Pacific common stock at twenty dollars per share to nine investing institutions and three individual investors, Mr. Cheatham states.

A pro-forma consolidation of the assets and liabilities of the Georgia-Pacific Plywood Co. and the C. D. Johnson Lumber Corp. as at September 30, 1951 shows total assets of more than $47,000,000. Current assets on a pro-forma basis are shown as $28,515,000, including $13,492,000 of cash and Government bonds, against current liabilities of $11,702,000. Other liabilities include a fifteen year term loan of $5,169,705 and the $12,600,000 loan referred to above.

PERFECTION
in lumber manufacture . . .
requires Armstrong
Precision sharpened saws!



Close-up shows Armstrong Sharpener set to precise angle for grinding a head saw. Every tooth is sharpened exactly alike.

50 years serving filing rooms

Top production schedules and top grade lumber can best be produced with *precision* sharp saws. That means every saw tooth working *precisely* as it should.

Armstrong automatic, band, gang, and circular saw sharpeners take the guess work and element of human error out of saw sharpening. Investigate today.

Armstrong
SAW SHARPENERS ... TOOLS

ARMSTRONG MANUFACTURING CO.
2135 N.W. 21st AVE. PORTLAND 8, OREGON
Founded in 1902 by E. P. Armstrong

Weyerhaeuser Sawmill

(Continued from Page 78)

Filer & Stowell 15 x17 in. twin steam feed;

1 Filer & Stowell 9 ft. double-cut band headrig V-belt driven by 300 h.p. E.M. motor, 24 ft. Sumner 3-block 60 in. opening carriage with Sumner rack & pinion setworks and Sumner 14 in. shotgun steam feed;

1 Sumner 14 x 72 in. Pacific Coast 7-saw edger with Sumner saw shifter controlled by Weyerhaeuser-developed compressed air application, Sumner 6 x 8 in. reversible twin steam feed, 300 h.p. E.M. motor driving saws;

1 Sumner 8 x 55 in. Eastern 5-saw edger with Britt electric saw shifter made by Klamath Iron Works, Adjusto-Spede (Louis Allis) feed, 150 h.p. G.E. motor driving saws;

1 Prescott Iron Works (Seattle) 42 ft. trimmer;

2 Prescott Iron Works 24 ft. trimmers;

1 Sumner 20 x 48 in. sash gang with Ryertex water-lubricated bearings, powered by 250 h.p. motor;

1 Filer & Stowell 6 ft. horizontal band edger powered by 40 h.p. G.E. motor;

1 Filer & Stowell 8 ft. horizontal split-bed band resaw powered by 200 h.p. E.M. motor;

1 Sumner 108 in. swing log cut-off saw and Sumner drag saw;

2 Sumner 72 in. carriage cut-off saws;

1 Sumner 48 in. swing cut-off saw;

Lumber transmission in back end of mill uses American Rubber Co. rubber belts.

Planing mill facilities:

1 Stetson-Ross 6-16A planer;

1 Stetson-Ross 6-12 planer;

1 Mershon 54 in. vertical band resaw;

2 Weyerhaeuser in-line end trimmers with end stamping;

2 Moore tilt-hoist unloaders;

1 Onstad automatic bundle trimmer built by Stetson-Ross;

1 Sumner 6-saw circular-saw rip;

4 Irvington jump trim saws;

2 spray tunnels, one behind each planer, where Lignasan applied to green finished lumber.

Other processing and handling facilities:

1 Stetson-Ross timber sizer with Lignasan spray tunnel;

3 Gerlinger lumber carriers;

3 Gerlinger lift trucks;

1 Star Iron & Steel Co. 106 ft. 10-ton bridge crane;

4 Star Iron & Steel Co. 96 ft. 10-ton bridge cranes;

1 Star Iron & Steel Co. 30 ft. cant crane in sawmill;

1 Ederer 15-ton bridge crane in turbine room;

1 P & H 5-ton bridge crane in machine shop;

2 Sumner 72 in. 8-knife chippers powered by 300 h.p. E.M. motors;

1 Rotex chip screen (Orville Simpson Co.);

2 Sumner #65 double anvil hogs each powered by 250 h.p. E.M. motor;

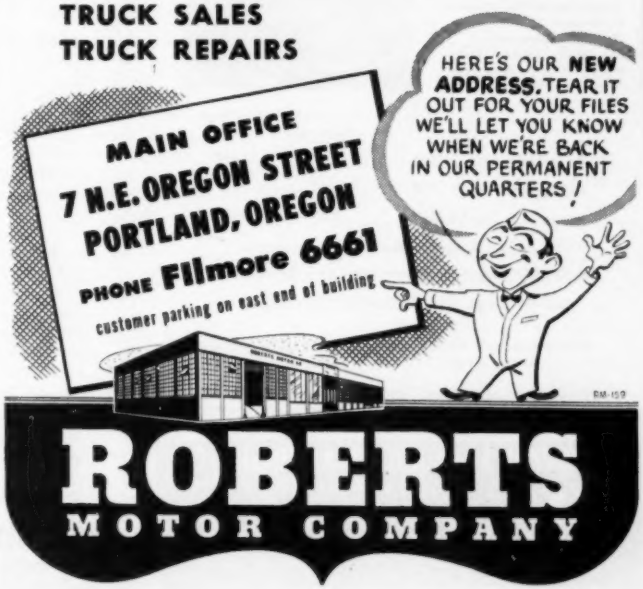
1 Sumner #35 powered by 60 h.p. G.E. motor.

New Remanufacturing Plant

A remanufacturing plant almost completely equipped with North End Machine Works machinery is the Nepa Construction Co. of Snohomish, Wash. Included are a North End planer, 6x15; 54" tilt band resaw; and feed table. W. R. Crook is manager of the Nepa Construction Co.

Roberts service department has performed near miracles in reconditioning trucks that have been smashed up or in bad fires. Expert mechanics, specialized tools and equipment is the answer to reliable truck repairing. And Roberts have the largest selection of truck parts in the Northwest. For complete service on all makes of trucks . . . for sales of Kenworth and Federal trucks you can rely on Roberts. Call us.

TRUCK SALES
TRUCK REPAIRS


MAIN OFFICE
7 N.E. OREGON STREET
PORTLAND, OREGON
PHONE Fillmore 6661
customer parking on east end of building
HERE'S OUR NEW ADDRESS. TEAR IT OUT FOR YOUR FILES WE'LL LET YOU KNOW WHEN WE'RE BACK IN OUR PERMANENT QUARTERS!

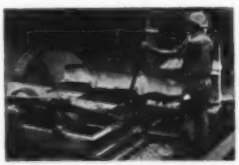
ROBERTS
MOTOR COMPANY

American's THE BUY!

IMMEDIATE DELIVERY!

Cash in on today's lumber profits with highly-efficient, modern American equipment

- ★ **MORE ACCURATE CUTTING** proved over nearly half a century of use.
- ★ **FASTER SAWING** with American's high-tension feed.
- ★ **GREATER SAFETY** with American's great protection features.
- ★ **LONGER LIFE** and lowest upkeep with American's rugged construction.



Thousands of Experienced Lumbermen Rely on The Great American Saw Mills, Edgers, Trimmers, Cut-off Saws and Shingle Machines.

	Headblock Opening	Carriage Length
American No. 1 Mill	38"	16'
American No. 3 Mill	44"	20'
American Porta-Mill	34"	10'

Write Today for Details About American —

Choice of Leading Lumbermen for Two Generations

You will always find American Saw Mills in stock at:

BURTON SAW & SUPPLY CO. Eugene, Oregon

STAR MACHINERY CO. Seattle 4, Washington

FEENAUGHTY MACHINERY CO. Portland 14, Oregon

STAR MACHINERY CO. Spokane, Washington

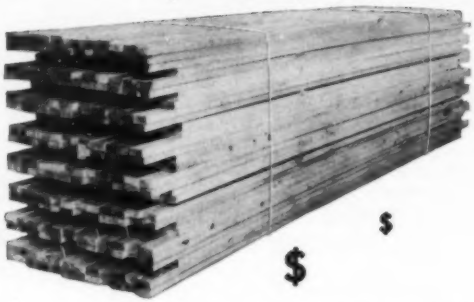
AMERICAN SAW MILL MACHINERY CO.

Established 1903

HACKETTSTOWN, N. J.

"American" Saw Mills and "Monarch" Woodworking Equipment

$ Packaged Lumber Pays Off!



Mill operators and dealers are finding that the modern trend to Packaged Lumber pays dividends in three ways:

LOWER HANDLING COSTS. Cars and trucks can be loaded in ¼ to ⅓ the time required for handling loose lumber. Carriers spend more time in transportation, less time waiting to be loaded or unloaded. Savings may be multiplied by the number of times lumber must be handled in the yard. And under lower cost include Gerrard Round Steel Strapping. It costs about 40% less than any other metal reinforcement.

BETTER INVENTORY CONTROL. When lumber is packaged, varieties, grades and sizes can be kept together, and tallying is quick and easy.

PLEASED CUSTOMERS. Packaged Lumber can be put in the yard or on the job site, quicker and in better condition than loose lumber. Packages need not be opened until ready for use, and so the danger of damage and pilferage is practically eliminated.

PUT YOURSELF IN THE PACKAGED LUMBER BUSINESS WITH ONE MACHINE, GERRARD'S MODEL G, AND ONE SIZE ROUND STEEL STRAPPING

A Gerrard engineer can give you more complete information about the advantages of packaging your lumber. And he'll gladly tell you why the Gerrard Method of Round Steel Strapping is preferred by successful lumber packaging dealers. His advice is available free of charge. Write for a free copy of the *Blue Book of Packaging*.

GERRARD STEEL STRAPPING DIVISION,
UNITED STATES STEEL COMPANY
4729 SOUTH RICHMOND ST., CHICAGO 32, ILLINOIS

U·S·S GERRARD ROUND STEEL STRAPPING

UNITED STATES STEEL

PROFITABLE TREE FARMING

From 4½ acres of this 60-year-old forest a thinning harvest gave Chimacum, Wash. farmers 22,422 feet of quality lumber for fairgrounds buildings. Bill Magelssen's Lumber Harvester is shown at work on the project. (Crown Zellerbach photo.)

Second-growth Douglas fir lumber low in quality? Don't tell that to the boys in eastern Jefferson county on Puget Sound. They can show that a log harvest in a 60-year-old stand yielded 98 percent No. 2 common or better.

In the summer of 1950 a Chimacum, Wash., cooperative group representing the Grange, the forest industries, county commission, soil conservation district, county 4-H fair association, state board of forestry, extension service and individual fermers and business men got together to promote a building project for the 4-H Fair. Up to then the kids had held their fair in tents and the elders were getting tired of it.

They arranged to make a thinning cut in a county-owned park tract at Chimacum and saw up the logs with Bill Magelssen's lumber Harvester from Stanwood across the Sound. The thinning job was to be a demonstration of good cutting practices. Foresters R. A. Brandes and Bob Fuller of Crown Zellerbach's peninsula staff and Martin Syverson of the U. S. Forest Service did the marking, aided by County Agent Jess Tiffany, Joe Myer of the state division of forestry, and Farmer W. S. Porter.

The stand as they found it totaled 46 cords per acre over the 4½-acre tract. They marked a total of 53 cords to come out, or between 11 and 12 cords per acre. This was about one-fourth of the original stand reckoned as to volume, but it represented only 32 trees cut per acre out of an average stand of 306 trees per acre. In other words, with only one tree in 10 marked for cutting, there would be plenty of growing stock after the partial harvest.

Cutting was contracted to William Nealy and John Gatchett of Gardner, yarding and decking to Norris Short of Chimacum. Decked and ready for sawing, the logs, which averaged about 10 inches, scaled 15,300 board feet. From them the lumber tally was 22,422 feet, or an overrun of 46.5 percent.

In addition the harvest yielded 15 cords of pulpwood from tops and smaller trees, and enough slabs and edgings to heat the Grange hall across the highway from now until the present crop of Chimacum farm boys are farmers in their own right. The committee also counted as a valuable by-product the sawdust pile, which will be used for mulching fields.

In summarizing the project, Vic Barry, Soil Conservation Service forester at Port Townsend, said the tight ring count plus smallness of knots was what brought the bulk of the lumber up into the choice grades. Yet it was not a case of the foresters having marked the best trees. Their efforts were for "release" and for improving the remaining stand.

Barry said falling was done with two one-man power saws and stumps were kept real low. A Caterpillar yarded to the main road and the wheel tractor pulled two or three logs at a time from there to the landing. Use of the small "cat" in the woods and careful handling thereof held damage to standing trees to an absolute minimum.

Altogether, for logging and sawing, the job cost the 4-H Fair Association $851.90, or $55.58 per M log scale; $37.85 per M lumber tally.

All the logging and sawing was done in 1950. Then, during the past summer, the Grangers and others led by Bill Porter used the lumber to put up two fair buildings—a main livestock exhibit structure and a concessions hall. So satisfactory was it deemed by the cooperating groups that there is now a plan in the making for producing some more lumber from a transmission line right-of-way clearing job along the edge of the demonstration forest. This lumber would be used for building grandstand and track for the Fair grounds.

While Magelssen had his Lumber Harvester in the vicinity last fall he cut upwards of 200,000 feet for a dozen or more farmers, and in nearly every case the excellence of the grade surprised even the experts. Farmers this fall had another big batch of logs decked for the mill's second visit to Jefferson county and there were less doubters around for Vic Barry's message that tree growing there pays.

Belcher Lumber Co.

(Continued from Page 68)

riage was modernized by installation of air set works and dogs. The small side has an electric carriage. Production of 8000 feet per hour is divided 4500 and 3500 feet. Atkins and Simonds sliver tooth saws are used. The entire sawmill uses 31 men, and did have nine more before improvements peeled carriage riders from three down to one, one of two men off the hog, two men of three from the log deck chain. There was a change to "better handling" from pond to lumber.

The company dips its lumber.

The W. E. Belcher Lumber Co. has over 100,000 acres of well managed timber lands, assuring its supply into the future. Brady Belcher is president; L. L. Harris, chief forester; C. T. McDonald, mill manager; I. Ragland, assistant to mill manager; N. A. Hood, sawmill foreman; C. C. Douglas, veneer mill supt.; and Charles Baugh, plywood plant foreman.

Redwood Association In New Offices

The California Redwood Association has moved its main office, in San Francisco, to 576 Sacramento Street. The move from 405 Montgomery Street, where the Association has maintained a suite of offices for 20 years, has been necessitated by a sizable increase in personnel, recently engaged to help carry out plans for a stepped up program.

The Redwood Region Conservation Council, which shares office space with the California Redwood Association, is also making the move to 576 Sacramento Street.

Participants at Forest Industries Council executive session at Portland, Ore. Left to right: W. B. Greeley, West Coast Lumbermen's Assn., Portland; E. W. Tinker, American Paper & Pulp Assn., New York, N. Y.; H. E. Brinckerhoff, American Pulpwood Assn., New York; Truman W. Collins, Collins Timber Properties, Portland; Vertrees Young, Gaylord Container Corp., Bogalusa, La.; C. S. Cowan, Washington Forest Fire Assn., Seattle, Wash.; Henry Bahr, National Lumber Manufacturers Assn., Washington, D.C.; Corydon Wagner, St. Paul & Tacoma Lumber Co., Tacoma, Wash.; FIC Chairman Clyde S. Martin, Weyerhaeuser Timber Co., Tacoma; A. B. Recknagel, St. Regis Paper Co., New York; Charles H. Sage, Kimberly-Clark Corp., Neenah, Wis.; Stuart B. Copeland, The Northwest Paper Co., Cloquet, Minn.; Sydney Ferguson, The Mead Corp., Chillicothe, O.; Wm. D. Hagenstein, Forest Conservation Committee of Pacific Northwest Forest Industries, Portland; Stuart Moir, Western Forestry & Conservation Assn., Portland.

Here it is...the High Lead block you and everyone else has been waiting for, Skookum's new 2200. Only *365 pounds*... Tough ... Rugged ... Fast.

Equipped with safety line eyelet ... Timken tapered Roller Bearings... Skookum patented bearing adjustment and grease seal ... Annealed cast steel sides ... manganese steel (non-line wearing) sheaves. Built like a champ throughout.

We Build Blocks to Your Specifications

SKOOKUM CO., INC.

8504 N. CRAWFORD • PORTLAND 3, OREGON

FIC Considers National Problems

The Forest Industries Council, policy co-ordinating organization of American forest industries, convened at Portland, Ore., in conjunction with Western Forestry & Conservation Association's recent annual 3-day conference. Participating were American Pulpwood Assn., American Pulp & Paper Assn. and National Lumber Manufacturers Assn.

Conclusions resulting from consideration of several national problems by the group follow:

Urges that Forest Service Flood Control surveys be confined to ascertainment of facts and that propaganda be eliminated.

Favors federal legislation authoring $30 million annually for 5-year period for constructing main line timber access roads to open federal timber for harvesting.

Favors development of "Valley" resources on basis of interstate compacts and creation of interstate commissions to work in cooperation with federal representatives.

Recommends establishment of a National Forest Insect & Disease Control Advisory Committee consisting of one representative from U. S. Dept. of Agriculture, one from Dept. of Interior, one from Forest Industries Council, one from Association of State Foresters, and one representing the general public to be named by American Forestry Assn.

Recommends that the Reorganization Act be amended to require that administration reorganization proposals be acted upon by a majority of Congress present and hearings thereon be conducted by regular congressional committees in the usual manner.

New Pole and Piling Inspection Service

An inspection service to serve the wood-treating industry and pole and piling producers has been established at Oswego, Ore., by Arthur T. Bode. Specializing in inspection and certification of all types of treated lumber, ties, poles, railroad and bridge materials, and other forest products, he will serve the Pacific Northwest area.

Mr. Bode was with Forest Products Treating Co. at The Dalles for 17 years and with the successor company, Baxco Corp., for past 2 years; was superintendent of The Dalles plant for 10 years.

Saw filers conference

The third annual Saw Filers Conference at the Brizard - Matthews Machinery Co. plant in Eureka, California, co - sponsored by Brizard-Matthews Machinery Co., and E. C. Atkins Co., was attended by 165 guests. The meeting was called to order by Mr. Russell Lynch, manager of the Saw Division of Brizard-Matthews Machinery Co.

The first topic for discussions which covered saws was headed by George O'Donnell, head filer at the Hammond Lumber Co., Samoa, Calif., and Keene Strobel, head filer at the Weyerhaeuser Timber Company Mill, Everett, Wash.

Art Swanson, head filer of the Pacific Lumber Co. plant at Eureka, Calif., and Noel Crawford, head filer for the Trinity National Lumber Co., Fort Seward, Calif., lead the discussion on the band wheel grinding. Also during this band wheel grinding discussion Bab Wagner, of the Pacific Abrasive Supply Co., in San Francisco, who are the Carborundum Grinding Wheel factory distributors for Northwestern California, gave an interesting talk on the different types of wheels and end performances used for this purpose.

Harold Woll, of the Bear River Lumber Co., gave an interesting report on the performances and maintenance of the Atkins stabilizing hole saws.

Al Coleman, knife specialist from Indianapolis, Indiana, representing E. C. Atkins Co., gave a very interesting talk on veneer knives and hog knives. The discussion was joined by Elmer Sanstrum, knife grinderman of Mutual Plywood Corp., Guy Chambers, master mechanic of the Eureka Plywood Co., and Jack Hendrickson of the Durable Plywood Co.

Top: left to right, were the speakers in attendance at the Third Annual Saw Filers conference: Russell Lynch, Mgr. Saw Division, Brizard-Matthews Machinery Co., Roland Dart, Jr., E. C. Atkins Co., Portland, Ore., George E. Bass, E. C. Atkins Co., Portland, Ore., A. W. Roark, & C. Atkins Co., Portland, Ore., Keene Strobel, Weyerhaeuser Timber Co., Everett, Wash., Ollie Bass, E. C. Atkins, Mgr. Western Division, Portland, Ore., Bob Wagner, Pacific Abrasive Supply Co., San Francisco, Calif., Elias Atkins, III, E. C. Atkins Co., Portland, Ore., J. P. O'Conner, E. C. Atkins Co., Portland, Ore., Al Coleman, E. C. Atkins Co., Indianapolis, Ind.

South Makes Progress

(Continued from Page 67)

The loss of production from elimination of over-time operation can only be made up through better methods and improved machinery. Of course, the mill that gets too far behind in production can run extra quarters but with all costs up and a ceiling on price there is no incentive to take this course.

Progress has been achieved in the woods in efficient utilization of labor. The use of power saws has increased substantially during 1951 following the let-down that followed extreme labor shortage during the war. The use of the power saw and other equipment calls for discriminating labor selection in developing logging crews that can produce a high footage for a given work-week. Handling of the power saw itself calls for a worker having a measure of mechanical aptitude.

Tree Length Logs

Another interesting trend is bringing of tree lengths to a central point where they are cut to log length and loaded onto trucks by a mobile crane. This is accomplished through the use of a tractor and towing winch or with a high arch or sulky to lift the forward end clear of the ground. This results in a more rapid logging tempo, and usually a better sawmill yield through substitution of higher judgment of log lengths to be cut compared with that of run-of-the-woods cutters.

This form of mechanical operation is growing in popularity especially where actually harvesting runs into low or swampy ground adjoining high, dry areas. Under these conditions, the tractors and equipment bring the tree lengths to selected locations where trucks can come in on good roads or graded woods trails. A mobile crane loads out the trucks rapidly and though expensive is self-liquidating through its ability to eliminate slow labor and keep motor trucks on the highway instead of waiting for logs.

In some southern areas the portable ("ground hog") mills have been curtailing operations because of high prices stumpage, materials and labor costs in the face of market uncertainty. This slump in production led to slackening of machinery sales to the point that some large distributors reported a decline of fifty percent during the last half as compared with the first half of 1951. The largest factors of efficiency for these mills is (1) use of a modern diesel motor which will produce a third more lumber than an equal sized gasoline unit, according to a distributor and (2) use of a mechanical or belt conveyor to keep the lumber moving. The green lumber from these units finds its way to a planing mill or concentration yard where mechanical efficiency methods may be introduced. The direct delivery of lumber from planer to railroad by use of conveyor belt or live conveyor chains or rollers is a standard method in these places.

It is believed that the principal trends of 1952 will be in the employment of every labor saving device possible because under today's floor of wages and ceiling on prices, it is necessary to reduce operating costs to a minimum. Elimination of waste, and practices to reduce shipping costs will continue to be a prime objective.

Builds Ten Dry Kilns

Booth-Kelly Lumber Co., Springfield, Ore., is rushing completion of 10-battery dry kiln to increase capacity of kiln-drying by 20 per cent. Each of the new reinforced concrete units will have interior dimensions of 105 x 16 x 13 feet, and will replace a former bank of eight smaller units. Much of the material for this job was furnished by C. M. Lovsted and Co., Inc., Seattle, manufacturers of the North Coast Direct Flo Dry Kiln. Lovsted also furnished one heavy duty transfer car.

Log Barkers

(Continued from Page 59)

a minimum of alterations to the mill. The logs are fed up the log slip in the usual way, but in most cases the speed of the bull chain is reduced to the minimum required to adequately feed the mill. Thus water consumption is materially reduced, and the power required falls in line with that of the ring barker. It is estimated by Hansel that this barker can be put into most sawmills at a total cost of somewhere around $100,000.

For the Southern mills the newest development is the Hansel pulpwood barker. It consists of two slit nozzles, one above, and one below the conveyor, which project two thin sheets of water inclined at an angle to the entry side above and below the logs. The experiments carried out with this barker have proved to be highly successful with all types of southern wood, and the water consumption has been held to 1500 gpm for 30 cords of pulp wood per hour.

A further development along the lines of the Pulpwood barker is the Hansel Slab Barker which utilizes the same type of nozzle, but on the top side of the conveyor only.

The Hansel Engineering Company has recently obtained manufacturing rights on the Dunbar Chipper, and production on the first few units is under way.

The Simons Barker

The first hydraulic log barker to be developed in British Columbia was the Simons' model, designed by Howard A. Simons, consulting engineer. First installation of the Simons barker was at the Canadian White Pine Division of MacMillan & Bloedel Limited, near Vancouver. The first machine, at "C" Mill, was regarded as experimental and the subsequent barkers built according to the Simons plan have incorporated various new features designed for greater efficiency in one way or another. However, the basic principles have been unchanged. Factors favouring the Simons barker are said to be:

1. Ability to handle a wide range of log sizes with a single barker installation.
2. Ability to maintain relatively high efficiency and production on small logs.
3. Mechanical simplicity and ability to operate on salt water.

The Simons rotary head barker consists of two or three rotating nozzle assembly heads which act upon a log moving axially on a conveyor or rolls. In the case of a two-headed barker, the heads are placed on two opposite sides of the travelling log or vertically above and below. In a three-head barker, the heads are arranged around the log, each of them taking care of a part of the circumference. For a large range of log sizes, the heads move in and out, according to the size of the log, the position of the heads being automatically controlled.

It should be explained that the process and equipment mentioned here refer to the Canadian White Pine installation. The other Simons barkers differ from this unit in several details, and each new model has its special refinements, but there has been no change in the fundamental design or operation. Since the C.W.P. model was built the power setup and pumping capacity have been increased to suit production rates and barking conditions.

The normal water consumption is approximately 1500 GPM and under easy barking conditions satisfactory results have been obtained at 1100 to 1200 GPM.

From the pump in the power house (in the Simons barker installations Bingham pumps have invariably been used) the high pressure water is carried (at Canadian White Pine) through six-inch heavy hydraulic pipe. The rotary head assembly consists of an alloy steel hollow shaft, passing through a cast steel housing. One end of the shaft branches into the hollow arms in a T-shape manner. A nozzle is attached at each of the two ends of the T, the nozzle axes being nearly parallel to the shank of the T. Actually, the nozzles are inclined towards each other and while rotating the jet center lines generate a cone surface with an apex angle of 14 to 30 degrees.

E. V. Prentice Log Barker

The E. V. Prentice log barker is designed for barking full length logs while the logs are still floating in the water, whether it be in a pond or tide water location. For a pond operation, the machinery is located on the edge of the pond and assembled on a platform, to enable the log to be rolled in the water. Or, in the case of a tide water operation, the machinery is located on a float, to accommodate for the change of height of the water level. Directly across from the edge of the main float is located the operator's console and platform. This arrangement allows for an approximately 10 ft. waterway between the main operating mechanism and the operator control console, through which the logs are passed.

On the Infeed side of the Log Barker are located two long turning chains. The chains are controlled by fairlead assemblies, which increase or decrease the lead of the chains, in order to determine the amount of forward progress of the log per revolution. After entry into the log turning chains on the infeed side, the log is then rotated and progresses forward under the cutterhead, which is incorporated into the main barker frame. The cutterhead in turn is controlled by guide shoes, to limit the depth of cut in the removal of the bark from the log. The cutterhead unit has all of the provisions to accommodate for the different diameters of the log, as well as tapers of humps that may be encountered on the logs periphery. Surrounding the cutterhead a suction hood is installed for the purpose of removing the refuse from the cutterhead as the bark is removed. By means of the suction hood, all of the barks and chips removed from the log are taken into the blower, located at the rear of the machine, and are discharged from this point to wherever the ruck is to be ultimately delivered. As the log progresses past the cutterhead, it enters into two more identical chains, as located on the infeed side of the machine; and at the operator's discretion, these chains are used.

The machine is operated by two men.

The E. V. Prentice Log Barker has a range from a minimum diameter of 12" x 16' long, up to a maximum diameter of any size that may be encountered in the particular mill's range.

The Prentice Log Barker has proven to be adaptable to any type of timber. In this regard, probably one of the most difficult type of logs to run is the redwood log found in the Northern California area.

The capacity of the machine has been proven in the redwood timber to be equal to an average of 104,000 feet per 8 hour shift on a spalding scale basis.

Bellingham-Type Barker

One of the first whole log barkers installed in the northwest was that conceived by the engineers of the Puget Sound Pulp & Timber Co., Bellingham, Wash. It was installed in that firm's wood room and was used for barking pulp logs. This is known as the Bellingham-type barker. The Sumner Iron Works of Everett, Wash., and the Canadian Sumner Iron Works, Vancouver,

B. C. obtained the rights to build and market this barker. Many have been installed in pulp mills.

However, this barker has been steadily improved by the Sumner engineering staff. Sumner's most recent achievement in the field of whole log barkers has been the building of units designed primarily for sawmills. One of its Bellingham-type whole log sawmill barkers was installed and is now in service in the Weyerhaeuser Timber Company's new modern sawmill at North Bend, Oregon. This barks logs up to 42 feet long. Note—a description of this installation appears elsewhere in this issue of the LUMBERMAN, in connection with an article on the Weyerhaeuser Timber Company's new North Bend, Oregon, sawmill. Another Sumner unit which will accommodate logs up to 44 feet in length will be installed in Weyerhaeuser Timber Co.'s Mill B in Everett, Wash. These sawmill barkers will handle logs from 4" to 84" diameter.

The logs—short or long, small or large diameter, are loaded on to and between two sets of turning rolls by a conventional log stop and loader either air or steam operated, and when debarking is completed, unloaded by special unloader arms operated by an air or steam cylinder.

While the log is turned in either direction the water spray, under pressure between 1200 and 1300# p.s.i. is applied through special hydraulic nozzles. The nozzle is moved longitudinally along the log as the log rotates with a drive permitting variable speed as required to suit bark conditions or contour of the logs.

The nozzle carriage can be stopped at any place to clean out bark pockets and around knots, etc.

These barkers may take from 600 to 1600 gallons per minute at 1200# to 1300# pressure, and require approximately 600 to 1600 horsepower. In all cases involute pumps of the multi-stage type are used, direct motor driven.

Sumner points out that the idea and practice of debarking logs in sawmills primarily producing commercial lumber has become increasingly popular in late years. Several factors contribute to this interest, including reduction of saw maintenance throughout the mill, a cleaner and safer plant, and the fact that all waste wood throughout the mill would be clean and suitable for production of pulpwood chips for sale to the pulp and paper mills. This has resulted for many operators in considerable additional revenue.

Also, not the least important factor is the indisputable fact that a considerable gain is invariably reflected in the daily output of lumber.

May Build Plywood Plant in New Guinea

Tests made at one of the MacMillan & Bloedel plywood plants in British Columbia have demonstrated that a native species of New Guinea wood, klinkii pine, is suitable for the manufacture of veneer stock, and so a plywood plant may soon be established in the South Pacific as a subsidiary venture of the Bulolo Gold Mining Co. Shareholders at the Bulolo annual meeting in Vancouver, B.C., where the company's headquarters are located, heard reports on the plywood project recently.

The Bulolo Gold Mining Co., which already operates a sawmill and woodworking plant to meet the requirements of its extensive gold dredging, is headed by Charles A. Banks of Vancouver.

Associated Roof Trusses Give Greater Storage Space to

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OTHER MILL BUILDINGS

Post free storage space was the prime objective of the Valsetz Lumber Company in building its big Dry Shed at Valsetz, Oregon. Associated Wood Products engineers, designed special 109' 6" Ledger laminated bowstring roof trusses with a live load of 45 pounds per square foot. Result —ample space with more than ample protection from the heavy snow loads of the Valsetz area. The Valsetz loading shed was designed to use Associated strap-connected A frame trusses with an equal economy of floor space. Because of the remote location of the mill, the trusses were fabricated on the jobsite of timbers cut by the mill—a saving in cost and many days of erection time.

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MECHANIZATION OF SAWMILL CARRIAGES AT THE MILLSITE

by

MILTON H. MATER,

Registered Mechanical Engineer, Managing-Owner
Mater Machine Works
Corvallis, Oregon

Many sawmill operators find themselves with their carriage in perfectly good condition, but outmoded, in that it does not have air dogs. Some operators would like to have air dogs put on their carriage so that they can operate with one less man.

In other mills where one man acts as both dogger and setter, the addition of air dogs speeds up the dogging and also enables the dogger to dog the log at the end knees; this dogging of the end knees is often neglected, making for very bad backstand lumber on long logs which overhang the knees for some distance.

Some operators may even wish to provide remote control for their dogs and remove the setter entirely; the sawyer will then use push buttons to operate his dogs and some type of remote control setworks to control his knees.

Air tapers can even be added to existing carriage knees.

Many mill operators have solved their problem by converting their manually operated dogs to air dogs, themselves, at their own mill site. If the operator is sufficiently familiar with the use of air he will be able to buy the parts and accessories required to make the changeover. For most mills, the complete air dog conversion kit, which comes equipped as a package with all parts and fittings required, is the simplest way of making the conversion to air.

Carriage Must Be in Good Condition

Before investing in the conversion to air dogs, the mill operator is wise to take stock of the condition of his carriage.

Sometimes worn knees can be shimmed up or remachined before converting to air dogs. Loose and worn knees tend to swing back and forth on a fast moving carriage: When the carriage moves in one direction, the worn knees lean over to one side; when it moves in another direction, the knees lean to the other side. This action twists the dogs in their grip and tends to push the log out. Often this condition makes it appear that there is something wrong with the dogs.

Types of Dogs Used for Air Conversion

By far the most popular type of air dog used for cants and small logs is the boss dog. The usual combination is to have a boss dog on each knee and one log hook dog on the center knee. Many carriages are made with hollow knees which already contain a boss dog. These are the simplest to convert. The photo of the remote control carriage which appears on this page shows a hollow knee conversion. The hand lever which operates the boss dog is replaced by an adapter; a base bracket is made for the cylinder; and the assembly is completed.

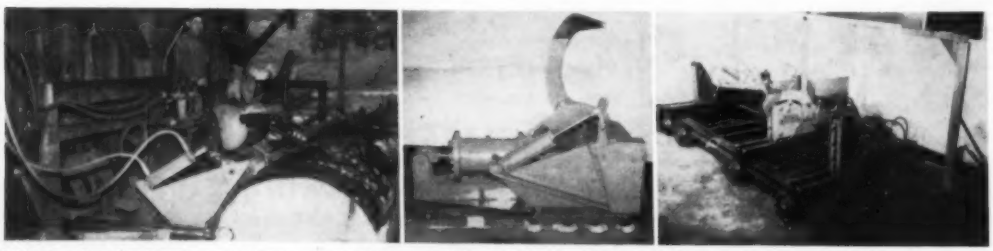
When the knees are solid, the boss dogs are bolted or welded to the side. Most manufacturers of boss dogs make their cases with bolts extending from the side so that they are easily fitted to the knee. Adapters and brackets can then be put on in the same manner as for a hollow knee. A conversion plate can be made as shown in the photo "COMPLETELY CONVERTED KNEE" This has the advantage of being a complete unit, which can be more readily mounted.

The log hook dog is made in many patterns. The ones shown in the photos are very satisfactory. By changing the pivot location for different sections of the country this type of hook dog can be made to dog down to six inches or up to 72 inches. If properly laid out, this dog will "draw in" the log. A quick release valve should be used with the hook dog cylinder to obtain high speed dogging. Mounting the hook dog requires only a pivot, usually of two inch shafting; a stop, if a cushioned cylinder is not used; and a tail bracket for the cylinder.

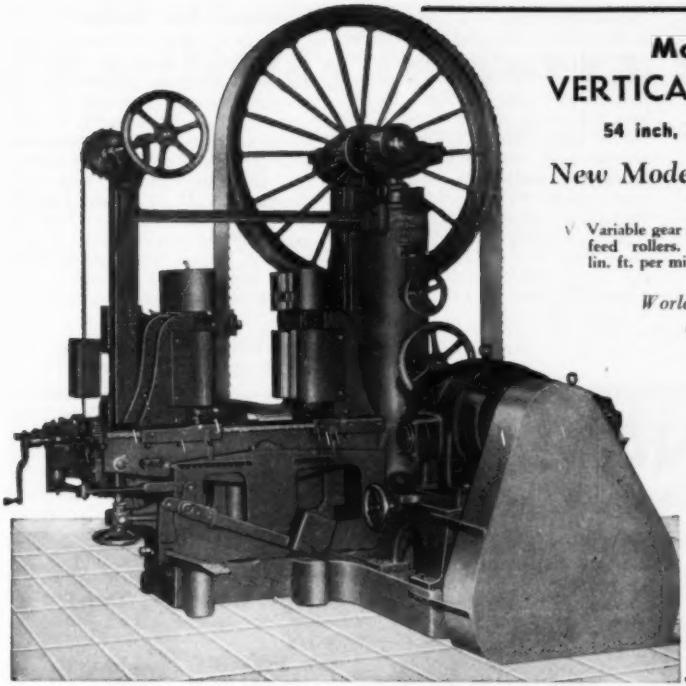
Essential Air Accessories

Almost any reputable make of air cylinder will do for this conversion. A three inch diameter by ten inch stroke uncushioned cylinder is used as a standard for boss dog operation by many millmen and manufacturers. For hook dog operation, a five inch diameter by ten inch stroke cylinder is used; this may be cushioned or uncushioned, depending on whether or not a stop is used on the hook. For high speed short log mills cutting over twelve lines per minute, it may be desirable to use a six inch diameter hook dog cylinder. Re-useable hose fittings are the most practical type for sawmill use.

Valves used with dogs are normally four-way lever operated so that a positive air pressure always exists in the dogging cylinders. A three-eighths inch valve is sufficient to operate each three by ten boss dog cylinder. If all three cylinders are to be operated by one valve, then a three-quarter inch valve should be used. The hook dog five by ten cylinder needs a half-inch valve, with a half-inch quick release valve at the cylinder exhaust port. Inexpensive grommet and piston type valves are excellent for sawmill use.



Left: Boss dog air conversion only. Center: Completely converted knee air boss dog, air hook dog, air taper. Right: Carriage completely converted to air dog operation for remote control.



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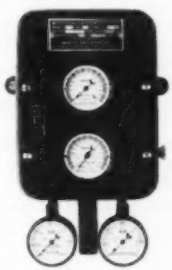

Moore air operated Pressure Controller with indicating pressure gauge.

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CROSS-CIRCULATION INTERNAL FAN SYSTEM

In general, the hoses and hose fittings should be one size larger than the valves on long lines. Where a three-eighths inch valve is used, half-inch hose gives best results; where a half-inch valve is used, three-quarter inch hose should be used.

A lubricator and filter assembly is a necessity for air operations in a sawmill. It should be put into the airline before the valves. A good place is between the compressor tank and the valve. The compressor may be mounted on the carriage as shown in the photo, "Boss Dog Air Conversion Only." While a three horsepower compressor is normally adequate, we have found that a five horsepower machine will give less trouble and pays for itself in the long run. Air pressure of 100 to 125 lbs. is used. Spare cylinders and valves, hose, and packings should be carried in the mill, as accidents may suddenly shut you down with a bent piston rod or ruptured packing.

Many sawmills have already put air on their dogs and it is hoped that the above information will help others who may have been wishing to do the same thing.

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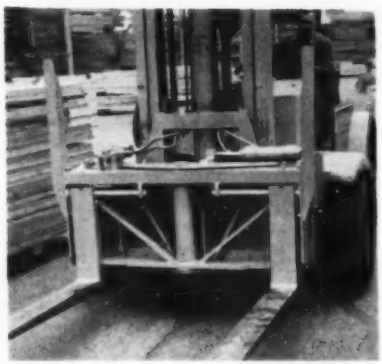

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ANY HEAVY LIFT TRUCK HAS A NEW LEASE ON LIFE, EFFICIENCY AND INCREASED PERFORMANCE. It eliminates most starting and stopping, jockeying for position and all NON-PRODUCTIVE MANEUVERING.

LUMBER OPERATORS: Now ANY driver on one approach can pile stickered lumber for kiln or air drying EXACTLY in FACE alignment AND end END alignment, because:

- ★ "SWING-SHIFT" fork base PIVOTS horizontally 20° of arc (full travel).
- ★ "SWING-SHIFT" fork base SHIFTS SIDE-WAYS 12" (full travel).
- ★ Driver controls PIVOT and SIDE-SHIFT with convenient dash controls.

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Hardwood from Softwood

British Columbia Research Council at Vancouver, B.C., has been carrying out tests indicating that properly treated softwoods such as cedar may be as durable as oak. Compregnated wood is produced with the use of plastics and chemicals under high pressure and temperature. Dr. R. H. Wright, chief of the division of chemistry believes that ends and narrow pieces of such wood as alder could be salvaged from sawmills and converted into durable, hard flooring at a profit.

Compton Joins Faculty Of Forestry College

Kenneth C. Compton, Columbia, Mo., a native of Seattle, Wash., has been appointed assistant professor of forest utilization at State University College of Forestry, Syracuse, N. Y., it is announced by Dean Joseph S. Illick. The combined faculty and research staff at the College now totals 99.

New Machinery Trend

(Continued from Page 64)

BY

E. P. IVORY, President
Ivory Pine Company
Dinuba, California

1. There is a trend toward use of debarkers in the sawmill which I consider important.

2. There is a trend toward greater use of hydraulic and electric operated carriages.

3. The electric pre-setting devices and hydraulic saw shifting mechanisms for edgers are new developments.

4. Another trend is the use of automatic and selective trimming by electric rather than mechanical means.

5. We see more and more automatic sorting stacking devices at the sawmills.

6. The variable feed devices are coming into greater use in planing mills.

BY

W. H. RATHERT, Manager
J. Neils Lumber Company
Klickitat, Washington

One of the outstanding new developments in the planing mill equipment is the shadow line guide for use with edgers, developed and patented by G. A. Horstkette of the McCloud River Lumber Co., McCloud, Calif. The line moves with the saw and shows where the saw will cut.

Facilities to Serve You

DRY KILNS—20 Tracks of Latest Moore Design. Capacity 1 Million Feet per Charge.

DRY SHEDS—Ample Storage Adjacent to Carline Means Dry Lumber for You.

DRY LOADING DOCK—Can Load 19 Cars Under Roof. Assures You Quick Shipment Regardless of Weather.

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1—77A Model 5 American 8K Rd. Hd. Rebuilt planer w/2 sets side heads, 100 HP motor, starter feed table, 5 HP Reeves variable speed drive.

1—6 x 15 Stetson Ross 4K Rd Hd. planer w/3 sets Rd. side heads, blower, jointer and hoods.

1—10" x 20" Berlin 4K Sq. Hd. planer w/hoods and blower.

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SAWMILLS

1—54" Gunderson 4 roll band resaw w/motor, starter V drive infeed and out feed rolls grinder and blades.
1—36" Circular 4 roll resaw
1—Top and Bottom steel husk frame for 2-54" saws.
1—29" three 60" screw block carriage w/cable sheaves and rail.
1—Hvy. duty sgl drum hoist w/50 HP Chrysler gas power unit.
1—10" x 14" sgl. drum friction hoist.
1—Corley Mechanical Nigger
1—36" belt driven cut off saw w/30" blade.
1—Complete all steel rebuilt portable mill on wheels, air, electric remote control carriage, power plant and edger.
1—No. 45 Diamond Hog

NEW EQUIPMENT

Electric and gasoline Powered Pond and Deck Saws. Standard Equipment-Elec. motor, (3 ph. or single ph.) starter, V belt drive, all steel Blue Babe Mandral, Titan bar and tailstock, Ore. chrome tooth #1 chain. Entire unit mounted with cover.

Gas Unit-Same as above with air cooled motor and clutch.

Distributors for

REED-PRENTICE CHAIN SAWS
OREGON COX CHIPPER CHAINS

Raimann Automatic Lumber Plugger

The introduction during the past year in the West of the Raimann Automatic Lumber Boring and Plugging Machine—by the E. V. Prentice Co., Portland, Oregon—offers another step to the lumber industry in furthering its up-grading program. The installation during the past year of a number of machines working in fir, pine and hemlock represents a forward step in lumber utilization.

The lumber plugger in operation, bores out the defect, manufactures the plug, and inserts the glue and the new plug automatically at the rate of 12 per minute. The glue bond is highly water resistant. Overlapping of plugs is possible, and provides a means of covering defects larger than 1-9/16". Plugs can be made in sizes from ½" to 1-9/16".

The practice of lumber plugging reduces the loss due to sawing and minimizes the problem of accumulated shorts that develop from sawing practices. The recovery and upgrading of low-grade material through use of the lumber plugger means that another step has been taken in the re-manufacturing department, to insure maximum yield from all types of lumber, together with a reduced production cost.

Fort Worth Distributor

Fort Worth Steel and Machinery Co. announces through their Pacific northwest agent, W. G. Ballantyne Co., that Western Machinery Corp. of Portland has been appointed distributor for Oregon and Southwest Washington for their full line of v-belt sheaves, sprockets, screw conveyors and transmission machinery. Adequate stocks of Ft. Worth products mill be carried at Western Machinery Corp's. Portland plant, 1035 S. E. Ninth Ave.

Ft. Worth sheaves are the "Q-D" type bushing and this bushing has been adapted to their roller chain sprockets permitting "off-the-shelf" deliveries and quick mounting.

Seattle distributors for Fort Worth products are the Adelman Machinery Co., 520 First St. S. William and Robert Adelman are the principals.

Machinery Personals

H. R. Lampe has been named assistant Western division parts manager for Caterpillar Tractor Co., with headquarters in San Leandro, California.

W. G. Turner, former Regional Manager, Cummins Southeastern Region, with headquarters at Atlanta, has been transferred to Cleveland as Regional Manager, Cummins Great Lakes Region.

Jay Misenhimer has been appointed to the newly created position of manufacturing engineer of the Hyster Company. In his new job Misenhimer will work closely with the design engineering department and his principal function will be to engineer and supervise assembly techniques and procedures.

Four officers were re-elected, two new vice presidencies created, and a group of other top officers elected at the annual meeting of the Twin Disc Clutch Co., Racine, Wis., and Rockford, Ill. Officers re-elected at the meeting of Directors held September 13 were: Chairman of the Board, **P. H. Batten;** President, **John H. Batten;** Vice President-Manufacturing, Soren Sorenson; Vice President-Sales, **N. F. Adamson;** Named to new positions were: **G. L. Shuman,** Vice President-Finance and Secretary.

R. G. DeLong, Vice President, Hydraulic Division. **R. T. Howell,** Treasurer-Assistant Secretary. **R. T. Rehwald,** Assistant Secretary-Comptroller, Hydraulic Division. **W. F. Shurts,** Director of Engineering.

Elwyn Mercer, industrial manager of the southwestern territory since 1947, left recently for England, to become general manager of Allis-Chalmers tractor division operations in that country. Mercer went to the University of Idaho, graduating in 1936 with a masters degree in mechanical engineering. He has been with the company ever since, except during World War II.

N. H. Melgard has been appointed salesman in the Eugene area for the Buda Engine & Equipment Co., Inc. Mr. Melgard is a well known equipment salesman with considerable experience in the sales and service of diesel en-

Install Buda Diesels

John Green of Leaburg, Ore., recently installed a Buda C-70 diesel engine in one of his logging trucks. John Dunning of Roseburg, Oregon, also installed a Buda 6-D-A-844 diesel engine in his logging truck.

Fred Lewis has sold his mill at South Bend, Wash., to **Bob Bush** of South Bend and **Victor Druzianich** of Aberdeen, Wash.

Latest News and Developments in the Machinery and Equipment Field

Prior to full scale production, the DA-211 endured rigorous cutting tests in the Northwest. Oregon woodsman Ray Byers (above) gets the feel of the unit in redwood timber near Eureka, California. The saw's flexibility, as either a one- or two-man carry, was demonstrated effectively in rugged terrain where slope cutting was in progress.

Disston's new light weight chain saw

A light-weight, two-man chain saw, which can be operated with ease also by one man and yet does the heaviest of heavy-duty jobs, has been put on the market by Henry Disston & Sons, Inc., Philadelphia. The saw, the latest in the Disston line, is the DA-211 Intermediate.

For easy carrying over the steepest, roughest terrain, the saw, silver-gray in color and powered by a rugged nine horsepower Mercury engine, knocks down into two sections less than 35 pounds each.

Perfected after two years of experiment and tests under actual cutting conditions, the DA-211 Intermediate has automatic clutch, automatic chain oiler, non-clogging air intake, oversized cooling fan and simplified controls.

The all-around saw, designed for operation under any conditions anywhere, is available either with the durable Disston "C" (chisel-type) or "L" (leader) cutting chain.

First deliveries in quantity are slated this month (December), in ample time for winter cutting, stated William P. Gillespie, sales manager of Disston's Power Tool Division.

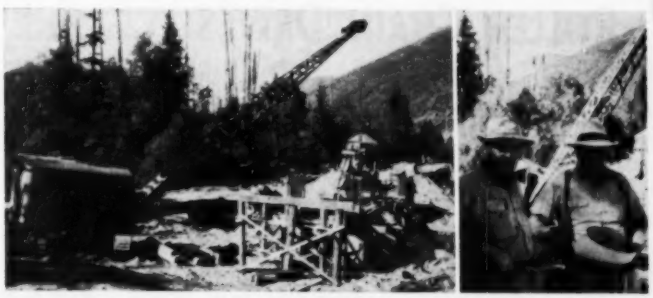
Woodsmen and farmers had opportunity to make design suggestions out of the wealth of their on-the-spot experience during many field tests of pilot models—climaxed by those held during the spring of 1951 at Snoqualmie Falls in Washington, Coos Bay in Oregon and at Eureka, California.

Above—Henry Disston & Sons Co., Inc., Philadelphia, conducted a one day meeting on December 10 at the Multnomah Hotel, Portland, to introduce the Disston light weight 2-man chain saw. This was the final meeting of a series starting in Portland, Maine, and ending in Portland, Oregon. Another feature of the Portland meeting was the presentation of one of these saws to Portland's mayor, Dorothy McCullough Lee, by Senator Duff of Pennsylvania, who acted as a special emissary for the occasion. Shown herewith (left to right) are some of the officials who attended the meeting: William P. Gillespie, sales manager of the Power Tool Division; Allan F. Kennedy, vice-president and Pacific Coast manager; Orville P. Madenwald, Portland manager; James A. Richter, service manager Power Tool Division. Below: shown herewith (left to right) are a group of Henry Disston & Sons Co.'s Canadian sales representatives and dealers who attended the Portland meeting: W. Bill Collester and J. Norstrom of Collester & Evans, Disston dealers in Nanaimo, B. C.; Harold Dous, field representative, Vancouver, B. C.; Don E. McGaw, sales representative, Vancouver, B. C.; and Jim Drake, field engineer, Vancouver, B. C., for Henry Disston & Sons Co., Inc.

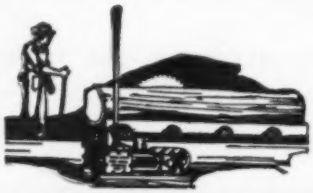
Babcock to Handle Sumner Lines in Northeast

Babcock Machinery Co., 1475 Broadway, New York City, has recently completed arrangements to handle forest products equipment lines of Sumner Iron Works, Seattle, Wash., in the Northeast. Among the equipment to be handled by Babcock will be Sumner's line of chippers, refuse hogs, debarkers, shingle mills, and pulp and paper machinery.

Babcock Machinery Co. is headed by C. L. Babcock, and his company has featured services to the forest products industry. Other companies represented by Babcock in the Northeast area include: Stetson-Ross Machine Co.; Greenlee Tool Co.; Mereen-Johnson Machine Co.; Plycor Co.; and Solem Machine Co.



Left: Northwest Engineering Company shovel (Model 46) equipped with crane drag line booms an essential piece of road building and bridge construction equipment. With completion of concrete bridge, 28 miles of access road in vicinity of Mt. Rainier will be finished for St. Paul and Tacoma Lumber Company, Tacoma, Wash. Shovel is powered by 135 HP Murphy Diesel Engine. Right: Elmer Nelson, foreman; and Jack Jensen, superintendent and partner, Strong & MacDonald, Inc., Tacoma construction firm who are building 28-mile access road.



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helps the small and medium size sawmill to make a profit through

GREATER PRODUCTION

without increased expense.

Uses no more steam than belt or friction feeds. Less expensive to operate. Much faster. Full details in Catalog W. Yours for the asking.

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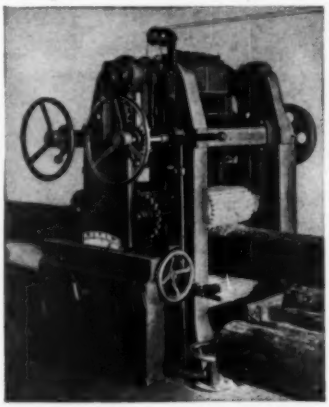
THE MOST ECONOMICAL METHOD OF SAWING LOGS



- HOLDS 24 SAWS; FEED RATE NOW UP TO 30' PER MINUTE
- SAWS LOGS AND CANTS WITHOUT ADJUSTMENT
- PRICE IS AMAZINGLY LOW!

The ESTERER produces uniform boards with minimum kerf loss—actually more boards per log! Includes hydraulic saw tension device, hydraulic press roll lift with remote control, and continuous log feed device. *Write for specifications and attractive quotations! Also request quotes on Edger and Automatic Saw Sharpener.*

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Importers of Special Wood Working Machinery

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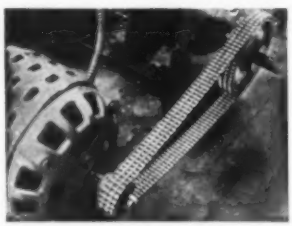

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Yearly subscription to The Lumberman for $1.50 United States and Canada (Foreign $2.50 with purchase of any of these books)

CASH WITH ORDERS

THE LUMBERMAN

71 Columbia St., Seattle 4, Wash.

Reichhold's New Southern Plant

Rapidly nearing completion are the principal units in the new Central Atlantic Division of Reichhold Chemicals, Inc. in Charlotte, N. C. This manufacturing division, when complete, will have a capacity of over 1,000,000 gallons of urea and phenolic resins per month—and designed specifically for use in the forest products industries (pulp and paper, plywood and furniture), textile and paint and varnish industries of the area.

Heading the manufacturing and sales operation is H. R. Helbig, who was named to manage the plant following six years in technical service and sales departments in Reichhold's main quarters in Detroit. With him are Dieter Reichhold and Vera Bergquist in sales; Peter Dorney, project engineer; George Hammer, plant manager; and Jos. Miller, Wm. Buchanan and Richard Porter handling technical service.

Reichhold's Charlotte plant is its second in the South (the first was established in Tuscaloosa, Ala., in 1945) and the ninth in the United States, and a plant now building in Montreal will be its third in Canada.

American Saw Mill Machinery Co. Changes Owners

Ownership of the American Saw Mill Machinery Company, Hackettstown, N. J., has recently been acquired by a group of industrialists, headed by Harold W. Umstadter, who is now president of the concern. It will be operated as one of a number of companies managed by the American Portable Irrigation Company of which Mr. Umstadter also is president.

For nearly 50 years, the company has been one of the leading saw mill manufacturers. During most of this time principal ownership was in the hands of one family. About a year ago the concern was sold and the woodworking division of the company was divorced. The company will now concentrate exclusively on the manufacture of saw mill equipment.

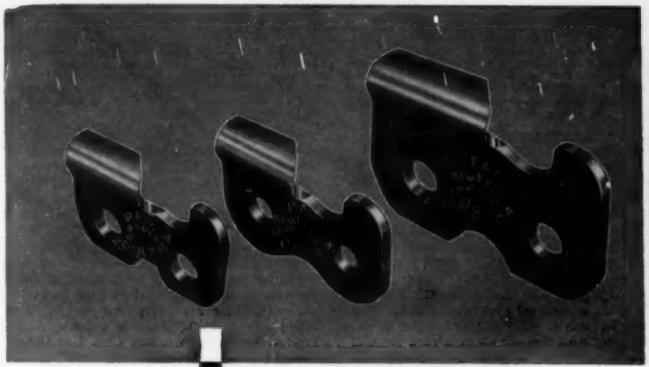
Mr. Umstadter is an industrialist whose career has always been concerned with the products of nature. As president of the Sunset Engineering Company, he helped make agricultural history in recent years by the development of portable irrigation systems.

Earl A. Mayberry, who has been an executive of the American Saw Mill Machinery Company for 12 years, will continue, in the capacity of vice president in charge of sales. Other officers include William G. Dennis, Vice President, and Howard Butcher, Chairman of the Board. They are also associated with Mr. Umstadter in other enterprises.

HAROLD W. UMSTADER new president of American Sawmill Machinery Co.

RCI's new Central Atlantic Division offices and technical service laboratory. The laboratory will occupy entire left wing of this building. Right: H. R. Helbig, manager of the new Division.

R. P. Parshall has been named southeastern regional manager for Cummins Diesel Sales Corporation, with headquarters in Atlanta. Ga. **B. C. Sears** is assistant manager; and **Norman Grimes** service representative.



Nothing False About These Teeth!

● Here is Oregon Chipper Chain's famous hard-chromed, Fast-File Tooth in three basic sizes which with minor variations fit all makes of chain saws and any size bar.

● There's nothing false about these teeth. They are "natural-born" cutters, known among chain saw users to be speedy, steady, trouble-free performers in all kinds of timber.

● No chain saw tooth ever has had so excellent a reputation for all-around cutting efficiency, for built-in endurance, for quick, easy filing by the operator. Guaranteed, patented, approved in the woods, Fast-File Tooth makes Oregon Chipper Chain the most desirable replacement chain for your saw. Order it from your dealer or fill in and mail the coupon below. Your chain saw efficiency curve will go up when you've installed an Oregon Chipper Chain.

The Oregon Chipper Chain is fully protected by U. S. Pat No. 2506784. All chains copying this design and not marked with this patent number are infringements. Be sure. Buy only chain bearing this number.

OREGON Saw Chain Corp.

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OREGON Solid-Temper Saw Bars • OREGON (Cox) File Holders
OREGON Depth Gauge Jointers • OREGON Wedges
OREGON Universal Outer End Handles

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Without obligation to me, please send me cost, details, nearest dealer's name for Oregon Chipper Chain.

Make of Saw:_____ Bar Length:_____

Name_____

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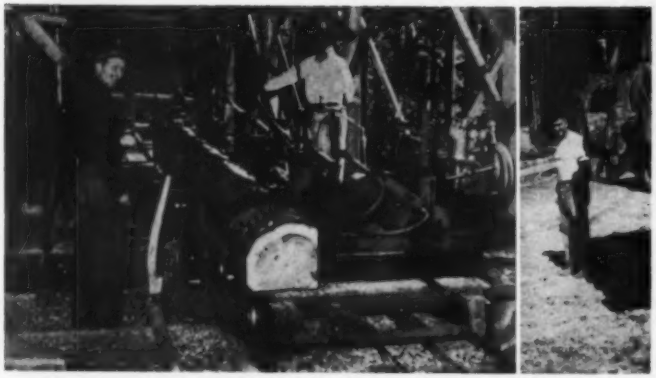

The R. C. Lovel Lumber Co.'s Corley #8 Mill, 16' Carriage, 3—44" Split Knee Headblocks with air Boss Dogs. 60" Simonds Headsaw, Nopak air cylinders, Valvair valves, Gardner-Denver Air Compressor, Powered with GMC 671 Diesel. Left to right: Sawyer—A. C. "Cap" Mathis; Setter—Leland Fehrs; Edgerman—John Westerlund; at extreme right: R. C. Lovel, owner and manager.

New Heavy Duty Knife Grinder

Samuel C. Rogers & Company has just recently produced in their Buffalo, N. Y., plant an extra-heavy duty knife grinder of massive, new proportions. It is one of the new "220 series" grinders. This huge machine is designed to precision grind doctor blades, paper knives, heavy duty chipper knives and shear blades up to 210 inches in length. It also is adaptable for flat faces and straight edges. Its cabinet base is 30 feet long and the whole machine weighs 10½ tons.

The knives are lined up and supported on a 10 inch wide, slotted knife bar which is of the heavy-duty, reinforced box, swiveling type and affixed to the knife table by heavy-duty trunnions. Magnetic chuck applications are available for quicker knife loadings.

The knife bar and table travels over extra wide 5 inch "V" ways that have been precision machined, end to end, for smooth table action. To drive the table assembly, a variable speed motor is used with speeds of from 25 to 50 feet per minute. Reversals are smooth and instantaneous. All grinding pressures and vibrations are transmitted to the massive base where they are easily absorbed.

Rebuilding is being effected of the **Smith-Feagin Lumber Co.**, loading dock, shed and warehouse at Kountze, Texas. The facilities were destroyed by fire in early November. Work is to be completed in early January.

Idaho Corley Mill

The R. C. Lovel Lumber Co., headed by Mr. R. C. Lovel, Plummer, Idaho, is operating two Corley sawmills, one at Plummer, and one at Headquarters, Idaho.

The one at Headquarters is the new #8 type Corley mill, powered with a #671 GM diesel engine on the head rig. This mill has some very new features such as head blocks with split knees, air operated boss and dogs and built in off sets. The air cylinders are of the Nopak type using Valvair valves. Also Dodge-Timken bearings and Gardner-Denver air compressors are used. They also have a 60 inch Simonds head saw. A Corley #6 edger with 8 saws, 3 movable and 5 in a gang, driven by a #471 GM diesel is used to finish their special cuttings which are 1 inch boards and 2 x 4's. A Corley slab conveyor, 300 ft. long, is used to carry the refuse to the burner. This new mill has averaged 15,000 ft. of 1 inch boards and dimension per 8 hour shift.

At Plummer, Idaho, Mr. Lovel operates a Corley mill as well as a planing mill where a Stetson-Ross #6 6 x 20 planer and matcher driven with a D-11000 Caterpillar engine is used. Lovel has made a specialty of cutting his lumber for grades to be used in his remanufacturing plant at Plummer.

For logging he uses two double drum swinging boom jammers designed by Bud Miller Welding Shop, Potlatch, Idaho. They are constructed on trucks. The company also uses a D-4 "Cat" tractor with bulldozer, 2 International trucks, 1 GMC truck and 3 6-wheelers.

John L. Hardy Promoted

John L. Hardy, formerly head of the engineering department of Associated Wood Products of the Northwest has been promoted to Portland manager, according to the announcement of J. D. Godfrey, President of the company. Hardy who has been in charge of estimating will continue in that capacity and will also direct the activities of the Portland staff under the direction of Godfrey who is General Manager of all the company's operations in Portland, Seattle and Spokane.

WALTER L. PATTY

DuPont Names Technical Service Representative

S. M. Strohecker, Jr., Manager, Seattle District, Explosives Department, E. I. du Pont de Nemours & Co., Inc., Seattle, has announced the appointment of Walter L. Patty as Technical Service Representative.

Mr. Patty has been with the Technical Service Section of the du Pont company for the past three and one-half years, spending most of his time in the vicinity of Joplin, Mo. With his wide experience, he will be in a position to assist with the use of high explosives in a technical way at any point in the West.

Mr. Patty will headquarter at 2409 S. E. 51st Ave., Apt. 8, Portland, Oregon, but communications relative to his services should be sent to E. I. du Pont de Nemours & Co., Inc., 1110 Hoge Building, Seattle 4, Washington.

George Roche Recovering From Serious Operation

The many friends of George Roche, for over thirty years sawmill engineer of the Prescott Iron Works, Inc., Seattle, will be glad to learn that he is recovering from a very serious operation, which was quite similar in nature to that of the King of England. While it may be a few more months before Mr. Roche is fully recovered, his sawmill friends will be glad to know that in the not too distant future he will be calling on them again.

Mr. Roche has had a great deal to do for many years with the designing of sawmill equipment, sawmill plans, and with installation. Most of the mills will recall Mr. Roche when he was making surveys for the installation of the Prescott trimmers, carriages, edgers, and various sawmill equipment.

Mr. Roche continually asks regarding the welfare of his many friends in the sawmill industry and any personal letters that they wish to write to George can be sent to him care of the Prescott Iron Works, No. 1 West Lander St., Seattle 4.

Fire damaged the boiler room of the **Adams Lumber Co.**, Mobile, Ala., on November 26.

the RIGHT gear ratio for load, road, and type of service

means more and faster trips, lower cost, longer truck life

EATON 2-Speed Axles *double* the conventional number of gear ratios, giving drivers a *right* ratio for every operating condition—on the highway, or off, starting out under full load, climbing grades, highballing, quick shifting in traffic. Engines run in the most efficient and economical speed range, reducing stress and wear on engines and power transmitting parts; adding thousands of miles to vehicle life. And Eaton Axles last longer because exclusive planetary gearing better distributes gear tooth loads. The exclusive Eaton forced-feed oiling system provides positive lubrication at all vehicle speeds. Ask your dealer to show you how Eaton 2-Speeds will help *your* trucks haul more, faster, longer, at lower cost!

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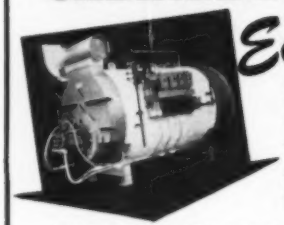
GABRIEL BOILERS



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BOILER SIZES MANUFACTURED:
3 to 300 horsepower — 15 to 200 lbs. working pressure. Oil, coal stoker, gas, sawdust and hog fuel firing with induced or natural draft.

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NEW "NT JUNIOR" KNIFE GRINDER

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This Provides Complete Lines of Transmission Products as follows:

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- **Western Utility Hoists**
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- **Paper Mill Machinery and Stock Valves**
- **Repair Parts for Hesse-Ersted Iron Works and Western Machinery Corp.-Built Equipment**

1035 S.E. Ninth Ave. Portland 14, Ore.
Phone EMpire 4117

H. C. (CLEM) FAIRSERVICE, left, has been appointed sales manager of Plywood Adhesives for the American-Marietta Company, Seattle, it was announced by E. R. DODD, right, Vice President of the company's Northwest divisions at Seattle and New Westminster, B. C.

Mr. Fairservice is well known in the plywood industry, having been associated in a sales capacity with the American-Marietta Company since its predecessor, the Adhesive Products Company, since 1941. He attended the University of Washington and has been a resident of Seattle for many years.

TIMBERLINE LOG TURNER

One of the most important operations in an efficiently operated sawmill is the log turner. If this operates rapidly and with precision, the log is started promptly on its way thru the mill. A combination log loader and turner is being manufactured by the Timberline Forge Works, Eugene, Oregon. It is a friction drive Simondson type turner which has been in use in many sawmills for years. It has proved to be a practical piece of equipment.

Timberline log turner

The turning mechanism above the log deck consists of one hook arm for turning the log, and two push arms for returning the log to the carriage after turning. The hook arm, with the hook folded, also acts as a third push arm. These three arms are spaced approximately six feet apart (12 feet overall) and for turning short logs only one push arm and the hook arm are used.

The sawyer has complete control of the hook at all times and the turner will handle both the large logs and the small cants.

The Timberline log turner has a friction-drive assembly that is installed under the log deck. In most cases the log turner can be driven off a line shaft under the mill, but if it is impractical to belt it off a shaft, it can be driven by a five or seven horse electric motor or small gasoline engine.

As much HP for BRAKING as for PULLING!

Twin Disc Three-Stage Converter

That's right! With the Twin Disc Direct Drive Hydraulic Torque Converter, the engine can perform 90% of the braking.

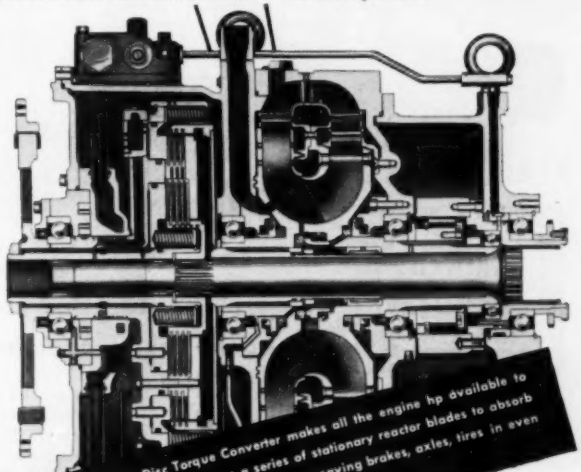
In fact, with this torque converter, you can exert braking effort in excess of engine rated horsepower.

Why? Because the Twin Disc Converter is a three-stage converter with a series of stationary reactor blades. Thus, not only do you get engine compression braking, you get the positive braking of energy absorption by the torque converter.

As a result, air demand on the compressor is reduced 50%, brake life usually prolonged at least 100%.

And, of course, this Twin Disc Hydraulic Torque Converter gives your truck "no-shift" performance up the toughest grades—saving tires, axles, gears, and "gear shift guesswork."

Write today for Bulletin No. 162 and complete information about the Twin Disc Model DF Hydraulic Torque Converter with direct drive feature. It may lead to your saving thousands of dollars in truck operation.



The Three-Stage Twin Disc Torque Converter makes all the engine hp available to perform 90% of the braking . . . has a series of stationary reactor blades to absorb energy produced from wheels on down grades, saving brakes, axles, tires in even the toughest operations.

TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

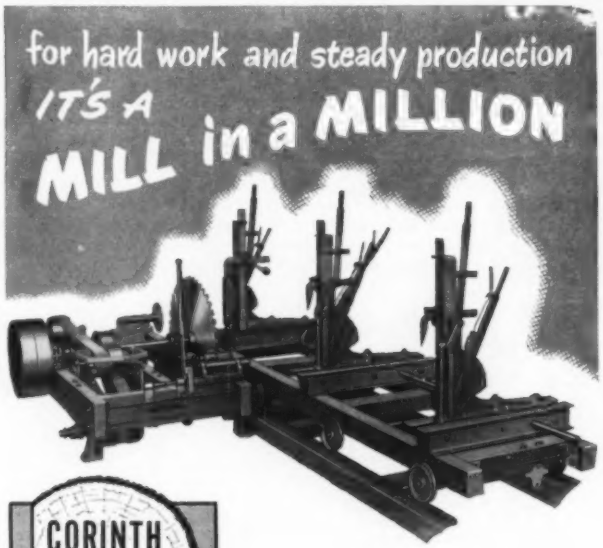
TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION Rockford

BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA

Shown herewith are (left to right) Messrs. M. C. Carlson, sales manager; Glenn Pollard, district manager San Francisco; and T. F. Tolby, sales engineer Portland, for the Signode Steel Strapping Co. of Chicago. Mr. Carlson recently visited their various Pacific Coast sales branches in the interests of his company's business.

Bucyrus-Erie Names Two New Distributors

Ray-Brooks Machinery Co., Inc., Montgomery, Ala. and the Tractor & Equipment Co., Inc. of Birmingham, Ala., were recently appointed distributors for Bucyrus-Erie Company's line of ⅜ to 4-yard gasoline, diesel and single motor electric convertible excavators, the 3-ton Hydrocrane and the recently introduced Hydrohoe. Both firms also handle Bucyrus-Erie tractor equipment—Bull-graders, bulldozers, Dozer-Shovels and scrapers designed for use with International crawler tractors.



CORINTH SAWMILLS

. . . put it to work for you and boom your production

The famous Corinth 1-B Sawmill stands up under grueling punishment—asks for *more* logs when you push it *and* push it. It will give you both the *accurate* production and the *quantity* production for profitable operation in all kinds of timber.

The Corinth 1-B can pay off for you just as it has for other owners for over a quarter century. Write for complete information about the Corinth 1-B and other Corinth Sawmills, Edgers and Trimmers.

FEATURES LIKE THESE MEAN FAST, ACCURATE, STEADY CUTTING

- ★ Speedy and accurate set works with pullover attachment so that sawyer can set his own blocks if desired.
- ★ Quick-aligning adjustable knees on steel headblock bases with wearing plates. Replaceable racks and steel pinions.
- ★ Fast 5-inch variable belt feed works, built to withstand hard usage.
- ★ Adjustable rope feed gears and adjustable headblock pinions to eliminate backlash resulting from wear.
- ★ Grooved carriage guide wheels on T-rail track.

SAWMILLS — EDGERS — TRIMMERS

CORINTH MACHINERY CO., Corinth, Mississippi

Above: Tulsa winch mobile crane in operation. Below: W. D. Cooper (left) mobile crane operator, and Ed Simons, Pope & Talbot shop maintenance mechanic at St. Helens, who designed and built the mobile crane. This unit is equipped with John A. Roebling's Sons Co. wire rope ⅝" and 9/16" (6x25 Preformed, Blue Center wire core rope).

TULSA WINCH MOBILE CRANE

Pope & Talbot, Inc., St. Helens, Oregon, recently constructed a new type mobile crane using Tulsa winches for general utility handling in their St. Helens and Oakridge plants. Some of the principal uses of this crane are:—For construction purposes, driving piling (with use of separate attachment), tearing out dock and replacing with new material, unloading machinery, setting machinery in place, loading scrap iron. In handling lumber it is used to pick up spilled carriage piles and load lumber on trucks when lift trucks are not immediately available.

The equipment used on the Tulsa winch mobile crane includes:—1 Model #10 Tulsa winch for raising and lowering the gantry, 1 Model SF-23 friction clutch Tulsa winch for the main line drum, 1 Model SF-10 friction clutch Tulsa winch as a secondary lift. The last two have two speeds on hoist line. The crane is powered by a Model JXC Hercules gas engine, has Timken-Wisconsin double reduction rear end, Clark transmission, Tulsa mechanically powered divider for drums, automatic brakes on all three drums, 7.50 x 20 tires, 21 foot reinforced latticed straight heeling boom, ⅝" and 9/16" John A. Roebling's Sons Co. wire rope. They have lifted eight tons of chain off a truck in one lift and they are rated at 10 a ton lift capacity. Pope & Talbot, Inc. have recently added a Vickers hydraulic steering control to the mobile crane.

Both of the units were designed and assembled through the ingenuity of their Mr. Ed Simons, maintenance shop mechanic at St. Helens. Western Equipment Company of Portland, Eugene and Roseburg, are Tulsa winch distributors in Oregon. They are also distributors for Vickers hydraulic steering equipment and John A. Roebling's Sons Co. wire rope.

Really Rugged...
...Startlingly Smooth...

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FRICTIONS

insure maximum service with minimum maintenance . . . . .

FRICTION BLOCKS · BRAKE BLOCKS
BRAKE LININGS

CHAMPION FRICTION CO.

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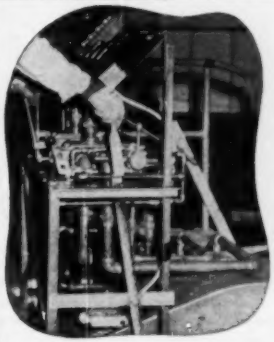

Valvair air control valves used on Cor lathe at Astoria Plywood Corp., featuring more convenient operator's position.

Lumber Companies Declare that "VALVAIR" Means Dependability

Valvair users report many years of service without maintenance. Our unique "OU" packer (the only wearing part) combines the best features of O-ring and self-sealing U-cup designs. No metal seats to deteriorate. If replacement of the packer does become necessary, the piping is not disturbed; a few minutes are enough. Get Folder 49-L-1.

Bearings & Transmission Products, Inc.; Eureka, Calif.
Chain Gear, Inc., 822 First Ave. S., Seattle 4
Galbraith & Sulley, Ltd., Vancouver, B. C.
Power Transmission Products, Portland 9

VALVAIR CORPORATION . 948 Beardsley Avenue, Akron 11, Ohio

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Shippers and Carriers of Lumber and Plywood from Washington, Oregon and British Columbia to all parts of the world.

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Log loader at Tuttle Bros., McKenzie Bridge

DOES YOUR LOG LOADER LACK CAPACITY HANDLING?
IF SO THE BOHEMIA TYPE (Patented) HEEL BOOM
CAN HELP YOU
BY SPEEDING UP YOUR LOADING
HANDLES 25% HEAVIER LOGS

Made for any Make or Size of Log Loader

A FEW SUCCESSFUL USERS:
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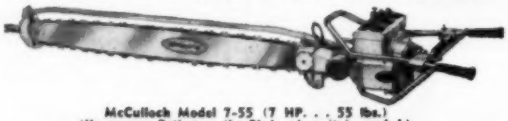
WRITE FOR DETAILS AND COMPLETE LIST OF USERS

EUGENE TRUCK & MACHINE COMPANY
375 East 5th Street Eugene, Ore. Phone 5-3375

THE NEW POWER SAW SENSATION



McCulloch Model 7-55 (7 HP. . . 55 lbs.)
(Horsepower Rating on the Blade where it is needed.)

MAY BE SEEN AT OUR EUGENE, ORE. STORE . . . REPLACES HEAVIER MODELS WITH as fast cutting but with ½ the weight to carry.
CAN BE OPERATED BY 1 MAN—Weight makes it practical.
EQUALLY PRACTICAL FOR FALLING OR BUCKING
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Factory Distributor . . . Lane, Linn, Lincoln & Benton Counties, Oregon
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Increases Mill Production
HEAVY RUGGED STEEL CONSTRUCTION
LENGTH 16 FT., BEAM 8 FT., DRAFT 2½ FT.
110 H.P. CHRYSLER ENGINE
Total Weight 5 Tons

ILWACO BOAT WORKS
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Dry Kiln Improvement

Among improvements at Hult Lumber Co., Junction City, Ore., are two Moore cross-circulation kilns, each 30' 7" wide x 66' long. The kiln drying is under the supervision of Lloyd Quinn. The output of the Hult Lumber Co. sawmill at Horton, Ore. is shipped to Junction City, where the better grades are dried in the two cross-circulation kilns.

The kilns are of tile wall construction, with wood roof, and are equipped with doors at each end which permit the loading of kiln trucks at one end of the operation and move the kiln loads directly through the kiln and into a large cooling shed after the lumber is dried.

The air circulating system in each kiln room consists of eight 72" diameter fans operated with a 40 h.p. motor on each kiln. These large fans are turned at a relatively low fan speed and produce a large volume of air circulation to assure uniform and rapid drying of fir lumber.

The temperatures and humidities in the kiln are controlled automatically by air-operated Moore Master recorder controllers which also automatically control the roof ventilator system on the kiln.

A system of water fog nozzles has been installed alongside the kilns to protect the better grades of fir lumber from surface checking while the lumber is being accumulated for kiln charges during the Summer months.

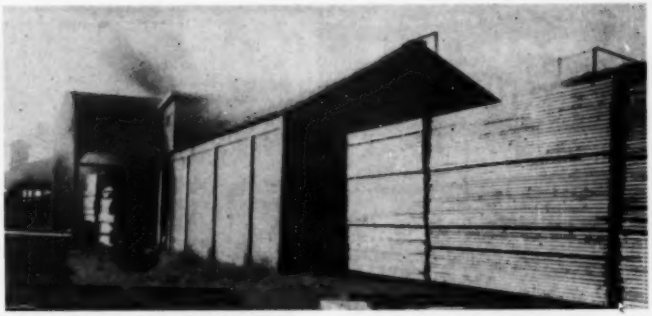
Celebrates 25th Anniversary

The Champion Friction Co. of Eugene, Ore., headed by W. H. Clubb, is celebrating its 25th anniversary. Mr. Clubb, general manager, formed the company 25 years ago in Aberdeen to provide all types of guaranteed frictions for the logging industry. The firm serves loggers and lumbermen all over the world.

Their factory at Eugene carries complete stocks for rapid service. Their latest friction block, known as "Gralam," is the result of their many years of intensive experimental work in their shop.

Items manufactured by Champion Friction Co. include friction blocks, brake blocks, brake linings, cylindrical frictions, conical frictions, clutch facings, etc.

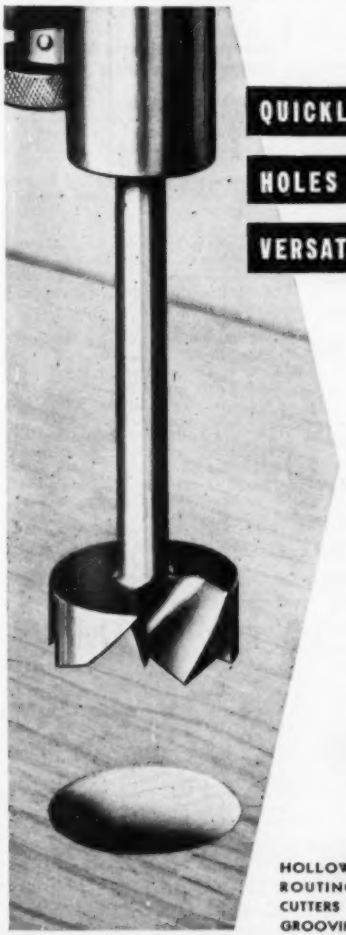
W. H. CLUBB



Moore Cross-circulation kilns installed at Hult Lumber Co., Junction City, Ore.

Fuller Expands Plant

Completion of a new 56,000 square-foot manufacturing building to be devoted exclusively to "small, miscellaneous transmission parts" is announced by E. L. Ludvigsen, President of the Fuller Manufacturing Company, Kalamazoo, Michigan. The new manufacturing plant is the third facility erected within the last year on the 25-acre industrial tract acquired in mid-1950.



QUICKLY BORE SMOOTH HOLES UP TO 3" WITH THIS VERSATILE MULTI-SPUR BIT

A fast, smooth-boring bit for those special jobs beyond the scope of the usual machine bit. Bores any arc of a circle on an edge of a piece of stock. Operates well in either soft or hard woods and is often preferred for end-grain work. Smoothly bores veneered stock without tearing and will bore at an angle, overlapping, or at close centers without splitting stock. Stocked in sizes ½ to 3". Write for facts. Greenlee Tool Co., 2171 Herbert Avenue, Rockford, Illinois.

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HOLLOW CHISELS • MACHINE BITS • DRILLS
ROUTING BITS • MULTI-SPUR BITS • PLUG
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GROOVING TOOLS FOR TIMBER CONSTRUCTION

REPLACE COMPLICATED MECHANISMS

WITH *Ledeen* CYLINDERS

Wherever you have to—

PUSH or PULL

LIFT or LOWER

PRESS or SQUEEZE

TILT or TURN

OPEN or CLOSE

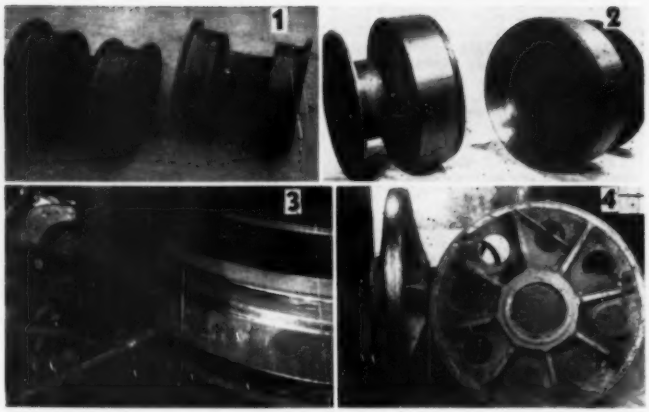
Ledeen cylinders provide positive, dependable power and pressure in straight line motion. Designed for air, oil, or water operation, they are uniform in design and construction, affording a wide number of varieties and adaptations. Ledeen cylinders are easy to install, occupy minimum space, and are built for long, economical service.

Standard Ledeen cylinders and mountings are available from distributors' stocks in major cities. Special cylinders if required. J.I.C., of course.

Ledeen Cylinders are GOOD Cylinders

Write for Bulletin 500

Ledeen Mfg. Co.
1604 So. San Pedro
Los Angeles 15, Cal.



1. Single and double flange "Caterpillar" rollers rebuilt and hard faced automatically with Stoody 105. 2. "Caterpillar" power take-off combination clutch and brake drum hard faced with Stoody 107 by the automatic method and ground to size. 3. Completed rebuilding and hardfacing of an International TD 24 idler using Stoody 105 applied automatically. 4. Idler wheels from Bucyrus-Erie 120 B Shovel rebuilt with Stoody 122 by the automatic method.

Custom Automatic Welding Shops Now in Most Areas

Tractor and crusher parts, customarily scrapped in "the good old days" of plentiful replacements, are now treated with loving care as shortages in new parts become serious.

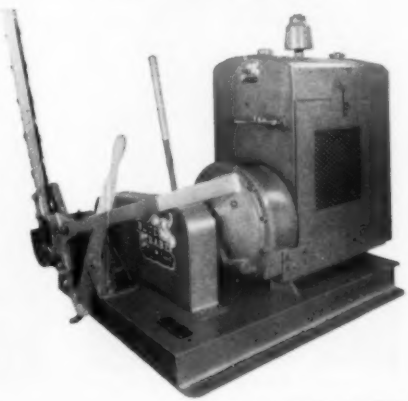
About four years ago the first hard-facing wire for application through the conventional automatic electric welding head was produced by Stoody Company of Whittier, California. One of the early wires, known as Stoody 105, was specifically designed for rebuilding such tractor and shovel parts as track rollers, idlers, house rollers, arch wheels and the like. Despite the fact that the basic idea was entirely new, hundreds of tons of the alloy have been applied to tractor parts in the intervening time. Like all hard-facing wires produced by Stoody Company, this is a fabricated material, steel strip formed as a continuous tube into which the alloying elements are introduced in the process of manufacture. The alloys are selected to give a deposit of extreme toughness and high wear resistance. The rebuilt roll saves tracks, since it holds its running surface longer and wears evenly.

From a few widely scattered welding shops, the list of organizations equipped to provide complete custom rebuilding service now numbers well over one hundred. A major part of these shops are prepared to handle various tractor parts, crushing equipment, heavy trunnions, speeder and locomotive wheels, crane brake drums, sheaves—in short, most types of equipment subject to severe wear.

Operators of heavy equipment who wish detailed information as to shops equipped to provide full service in automatic rebuilding and hard-facing may obtain this from Stoody Company, Whittier, California.

New Yates American Installations

Recent deliveries of Yates-American sanders include the following: 2 to Puget Sound Plywood Inc., Tacoma; Padco Products Inc., Emeryville; and E. A. Nord Co., Inc., Everett. Yates A-62 matchers were delivered to Clemens Forest Products Co., Inc., Philomath, and Coastal Lumber Co., Grande Ronde. Yates V-60 band resaws were delivered to E. J. Hjertager & Son, Yreka, and to Bate Lumber Co., Merlin.



A new heavy-duty type Blue Babe pond or deck saw is being marketed by the manufacturer, Northwest Marine Iron Works, Portland, Oregon. This new unit was designed to fill the need for a saw that will cut large diameter logs both at the pond and on the log deck, where electric power is inadequate or not available. It comes with either air or water cooled gas engine and will handle up to 10 foot saw bar assemblies. It is so designed to use any standard make of chain saw assembly or saw bar. The unit is built of standard Blue Babe units with complete interchangeability of parts, and weighs approximately 1000 lbs.

TIMBERLINE LOG TURNER

Increase Your Cut—Decrease Your Labor Costs With A

TIMBERLINE LOG TURNER

FEATURES

Friction Drive—requires no air or steam. **Simonsen Type**—turns the log away from the carriage. **Controlled Hook**—not an "automatic" hook; operator has complete control over action of hook. **Proven Performance**—not an experimental device; dozens in daily use. **Easy to Install**—no extensive changes necessary in log deck; can be installed by any competent millwright. **Simplified Controls**—a single stick controls both push arms and hook. In most cases can be driven off present power supply. Self-aligning bearings throughout.
Very Low Cost—complete, ready to install, F.O.B. Eugene, Oregon.

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SLAB BURNERS·CONVEYORS
HEAD PULLEYS·BEARINGS
CHAIN and FLIGHTS

3 - 6 DAYS ERECTION

Prices Invite Comparison

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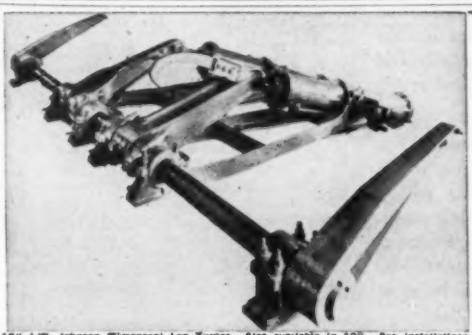
Phone 1526 **REDDING, CALIF.** **P.O. Box 1543**



12" I.W. Johnson (Simonson) Log Turner. Also available in 10". See installations at Arcata Redwood, Arcata, Calif., and Winton Lumber Co., Martel, Calif.

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50 years in business

Turners, 8", 10", 12"; Carriages, complete; Rolls; Skids; Edgers, 6", 8", 10", 12"; Shot Gun Feeds, 8", 10", 12"; Niggers, 7"x 9", 8" x 10". Trimmers, resaws, gears, transmissions, feed engines, straight connected and geared. Power setworks, rack and pinion and screw type.

We design and build sawmills.

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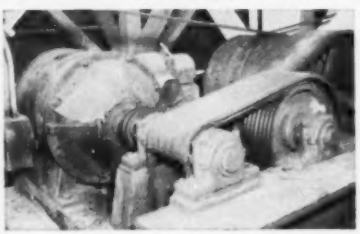

Skeen Electric Feed Works Recently Delivered To Western Sawmills

The Skeen Electric Works Electric Feed Drive

A FEW RECENT INSTALLATIONS

OVER FIFTY INSTALLATIONS NOW IN OPERATION

Cascade Locks, Ore., Lbr. Co., 125 HP carriage drive; Roseburg Lbr. Co., 60 HP planer feed drive; Oceanside Lbr. Co. 50 HP planer drive; Engle & Worth Lbr. Co., Winchester, Ore., 50 HP planer drive; Chapman Lbr. Co. (Mutual div.) 40 HP; Southern Ore. Planing Mill, 125 HP carriage drive; Cheney Lbr. Co., 10 HP on Wickes gang mill; Clay Brown Lbr. Co., 10 HP on Edger rolls; Van Vleet Lbr. Co., 7 various Skeen electric drives; Magnolia Lumber, Rogue River, 200 HP carriage drive; Wagner Bros., Longview, carriage drive.

Call or Write for Details

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IN BUSINESS SINCE 1906

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FOR THE LUMBER INDUSTRY

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We say "better" because our large stocks are complete . . . our five stores are practically next door to you wherever you may be in the Pacific Northwest . . . our service is fast.

Our engineers understand the lumber industry's requirements for bearings—and the importance of service to an industry where bearings carry a big load every day in keeping production at its peak. These engineers are at your beck and call for competent advice and help in bearing changeovers and applications to new equipment.

We issue a Bearing Maintenance Report which is designed to give you a handy reference source for ready answers to questions on bearing maintenance, new bearings and applications and current improvements in methods. A note on your letterhead will bring it to you. Won't you drop us a line?

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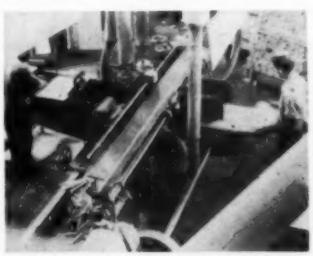
ROSEBURG: 117 South Stevens Street

Shown herewith is a Gerlinger lumber carrier, 69" inside width and 78" high, with an all-weather, sound-proof cab. The cab was constructed by Wentworth & Irwin, Inc., Portland, Oregon.

Logging operations with a high arch on grades where they have been unable to operate before is reported to Wood Tractor Co. of Portland by Lew Nuttbrock of Nuttbrock Lumber Co. of McMinnville, Ore. The operation is possible because of the balance of the new Allis-Chalmers HD-9 tractor in use at the firm's mill at Meadow Lake, Ore., Nuttbrock reports. The tractor is used for cat logging, arching logs to the mill, dozing sawdust from the mill and yarding slab and edgings from the mill, according to Roy E. Wood of Wood Tractor Co.

New Boom Boat at Snoqualmie

The Snoqualmie Falls Lumber Co., Snoqualmie Falls, Wash., recently took delivery of a 16 foot Ilwaco boom pond boat. This is the type with the flush deck and is powered with a 110 HP Chrysler gas engine. It is the seventh Ilwaco boat being used by the Weyerhaeuser Timber Co. organization.



The Mereen-Johnson 600-M-J cutoff saw, shown above, is in operation at the Harbor Manufacturing Co., Newport Beach, California, where it has for over a year played a vital part in that company's activities in the manufacture of knock-down, unpainted furniture. According to Manager C. R. Staff, the saw, in operation day and night, does the entire job normally requiring the use of several machines. The M-J 600 was supplied by the Frank Jones Machinery Corp. of Los Angeles, distributors for Mereen-Johnson machinery.

There Are EXTRA ADVANTAGES with an IRVINGTON TRIMMER

There's a model to fit your particular trimming requirements

43-A Heavy Duty V-Belt;

43-B Heavy Duty Motorized;

43-C Medium Duty V-Belt.

•

AUTOMATIC Random Length Smooth End Trimmers.

AUTOMATIC Random Length Smooth End Trimmers with "Individual Saw Control"

Designed to trim for maximum amount of profit lumber, minimum amount of refuse.

Geared to cope with present day high planer speeds. No other trimmer has been so successful in maintaining such top performance. Tailored to fit your requirements. Whether your mill is large or small, Irvington can engineer a trimmer to give maximum coordination with balance of mill equipment.

Irvington has concentrated on cut-off saws and trimmers since 1907 . . . specialists by experience, by reputation.

Write Today for illustrated folders . . . and a list of over 50 mills who, in 1950 alone, selected Irvington Trimmers.

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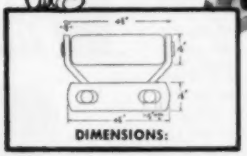
Get tough! with HIGH LABOR COSTS!

PORTALLOY ROLLER TOP CHAINS

are your answer to high green chain labor cost.



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MANGANESE BEARING
LONGER LIFE
EASILY WELDED TO
FITS STANDARD SPROCKETS

Write or call for catalog and price sheet. . . . .

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Rack & Pinion Type Set Works

Prescott-Seattle ELECTRIC SET WORKS

For Fast, Accurate Setting
Will set to 1/32" increments

BUILT-IN DRIVE MOTOR

CLUTCH AND GEARS OPERATE IN OIL TIGHT CASE

Built for either rack and pinion or screw block type carriages

Prescott Iron Works, Inc.

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ATTENTION: SAWMILL OPERATORS

	Check Yes	No
1—Have you had a sawmill designed for you?	☐	☐
2—Have you had a sawmill constructed for you?	☐	☐
3—Have you had the machinery installed in a sawmill for you?	☐	☐
4—Have you had the chain and belt speeds figured for you to get the top efficiency thereby cutting costs per unit?	☐	☐
5—Have you lost operating time as the result of inadequate equipment or faulty production line arrangement?	☐	☐
6—Does your lumber show perfect manufacture?	☐	☐
7—Does your sawmill produce enough good lumber to justify your investment?	☐	☐
8—Do you realize how much more successful your mill will be if you have a well designed, well constructed sawmill?	☐	☐

IF YOU DON'T KNOW THE ANSWER TO THESE QUESTIONS OR YOU HAVE A PROBLEM OF YOUR OWN— CALL OR WRITE

M. A. WARD CONSTRUCTION COMPANY, INC.

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PHONE 4-5531

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Diesel Powered Wisconsin Portable Sawmill

A father's sawmilling experience and a son's mechanical training received in the Army are responsible for a unique sawmill now being operated in Northern Wisconsin.

Art Halbesleben of Aniwa, Wisconsin has operated sawmills for over thirty years. His son, Howard, serviced Army equipment during World War II. When Howard's hitch was up and he returned home father and son devised a rig that goes into the woods under its own power and cuts up to a million and a half board feet of lumber a year.

The mill consists of a truck-mounted power unit and a separate carriage and track which is mounted on an axle when traveling. It is 44½' long and 7' 10" wide when ready for the road.

A 4-cylinder GM Diesel, which since 1947, has been driving the 54" saw, the two blowers and has also been propelling the rig over highways and rough terrain.

The engine is belt-connected to the transmission when traveling and moves the rig along at 30 miles per hour. According to the Halbeslebens the mill can be set up on location ready to saw in 50 minutes.

The Halbeslebens' portable sawmill cuts into a sizable pile of logs for a customer in Northern Wisconsin.

Starts Mill in Idaho

Harvey Bros. formerly located at Woodland, Wash. who sold two mills they had operated in that locality and went into retirement, were unable to stand the inactivity after 25 years in the sawmill business so purchased a sawmill from Zidell Machinery & Supply Co., and went into production at St. Maries, Idaho. They are operating a Cunningham mill and producing an average of 30M feet per day. Plans are for the building of another mill in the same locality. Zidell has furnished material to build nearly the entire mill, including a GM 671 diesel unit, sorting table, pulleys, sprockets, etc.

Wapakoneta Doubles Plant Capacity

New building construction will increase capacity of the Wapakoneta Machine Co., Wapakoneta, O., by approximately 50 percent, it was announced by M. Merle Harrod, Vice President.

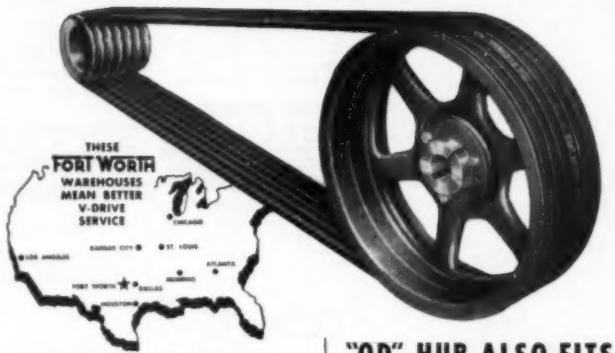
Harrod said "the very latest type of heat treating equipment, machining equipment and grinders will be included in this new facility."

The Wapakoneta firm, incorporated in 1891, is one of America's oldest and largest exclusive knife manufacturers. It is known throughout the country as one of the outstanding producers of straight, circular and irregular machine knives.

A new enlarged plant of Pacific Saw & Knife Co., 910 S. E. Stark St., Portland. The plant was recently more than doubled in size. The company is exclusive distributor for E. C. Atkins & Co. saws in the Portland area. They are also dealers for Armstrong Manufacturing Co.'s saw sharpeners. The company has a complete saw repair shop specializing in carbide repairing. One of the outstanding features of their shop is their ability to grind up to 12½ foot shear blades to extremely close tolerance. They claim to have the longest commercial grinder in the Pacific Northwest.

SEE FOR YOURSELF—Next time try a

FORT WORTH TRANSCO QD SHEAVE



You will receive the best in service, sheaves, and V-belts when you buy a Fort Worth-Transco V-drive.

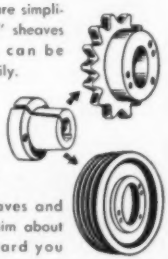
Two manufacturing plants and a large foundry designed to make V-belt sheaves assure volume production even in periods of short supply. Factory warehouses supplemented by numerous stocking distributors provide quick delivery on stock sizes.

The advantages of "QD" construction are many. We will be pleased to explain them to you at any time.

Fort Worth-Transco V-Belts are made for us under our own trade name by B. F. Goodrich in the patented Grommet construction (C, D, and E sizes). A and B sizes are made in the proven "Style 7" construction. All belts are "Double-Matched" to assure long drive life and complete satisfaction.

"QD" HUB ALSO FITS NEW FORT WORTH "QD" Roller Chain Sprocket

Speed changes are simplified and "spare" sheaves and sprockets can be carried more easily.



If your favorite distributor doesn't stock the Fort Worth QD line – both sheaves and sprockets – tell him about them. He'll reward you with better service.

Write for name of nearest distributor and for descriptive catalogs on "QD" Sprockets and Sheaves.

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Dept. 231, 3600 McCart Street
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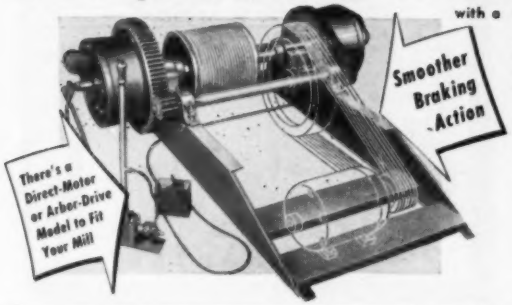

- Heavy-duty brake units, same as on log or freight trailers.
- Speed tailored to fit your specific mill requirements.
- Complete unit installations assure fast, continuous operation.
- Operator is able to obtain fast, flexible carriage action with minimum of effort.

FOR FURTHER INFORMATION WRITE OR CALL . . . .

Salem Equipment & Supply Co.

EARL HITCHMAN VIC UTTERBACK

3455 D Street • Salem, Oregon

Telephones: 3-2561 Day, 4-2193 Night

Revolutionary Transition

(Continued from page 61)

Some of the recent trends in British Columbia sawmill equipment and technique were listed as follows by various mill superintendents consulted by The LUMBERMAN:

1. Increased use of air dogs on sawmill carriages and the use of air to clean blocks instead of the less efficient and more hazardous lath or stick, resulting in reduction in the accident hazard.

2. Use of variable speed drive on edgers, the direct current providing better control over the mechanism.

3. Adoption of such devices as the Kirk-Hillman drive in the carriage feed, providing automatic braking and saving power dollars because of the ability to recover energy and use it again. Bridge Lumber Co. is one of the mills using this.

4. Installation of solenoid controls for trimmers to actuate the valves, one of the main advantages being to reduce fatigue on the part of the operator. Instead of having to pull wires, he merely uses toggle switches. Such an arrangement improves visibility and cleanliness, too. Pacific Pine Co. and B. C. Manufacturing Co. are among the mills that have followed this practice.

5. Manganese chain for conveyor systems instead of inferior metal. Sawmill executives contend that while manganese chain results in a greater investment, reduced maintenance costs make the additional cost worth while.

6. In the yards, hand stripping is being replaced by automatic stackers, in some cases almost 100 percent when 4 foot to 8 foot packages of lumber are being prepared.

6. There is a tendency towards strapping of lumber loads with steel bands as a safety factor and to improve the general appearance of the package.

7. Increased utilization of cement, building blocks and pumice bricks in the construction of dry kilns as a means of increasing the buildings' endurance.

8. Higher-power units for planers. Where electric power is abundant and relatively cheap mill operators are tending to use more of it wherever possible, but practical sawmill men point out that the new idea isn't always the best and while there is much to be said for the all-electric sawmill there are instances where steam still possesses an advantage.

9. Attachment of fins to rotors on chippers to act as a fan to blow chips to the conveyor. These fins take the place of conventional blowers, especially in congested areas where the chipper is not easily accessible to conveyor belts.

The big companies have been in a position to capitalize on all these advantages, but the numerical increase in the sawmills of the province is a clear indication that the small operators have found abundant scope for action. The small operators who have succeeded are those who have been smart enough to gear their setup to a specific situation and who have aimed at efficiency through installation of modern machinery that is economical in labor requirements. As an illustration of this there has been a notable increase in the number of gang mill installations for small logs and of one-man and no-man carriages with full electrical controls. In their modernizing plans the small operators often have the advantage over the big ones because of the greater scope for flexibility and replacement of machinery without excessive investment.

"In the final analysis it comes down to how bright the individual operator happens to be, whether he is running a big mill or a small one," remarked a Vancouver sawmill man who has had experience with both categories. "The efficient big mill has as much chance of success as the efficient little one, and vice versa. But the operator can't afford to believe that sawmilling is static. New ideas are coming up all the time and being translated into new machines and new methods. The operator who wants to keep his place in the parade has got to keep his eyes open and be ready to spend a few dollars at the right time to buy the equipment that in the end will save him money."

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your job will be tops

...like the high-climber's, when you use BERGER blocks. Lightest weight...greatest strength. Most work out of your rigging.

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BAND WHEEL GRINDER

Wheels Ground at any operating speed.
Bottom and Top Wheels are ground with one set up, only takes 5 minutes to change from Bottom wheel to Top wheel.
Machine fastens solid to Band Mill.
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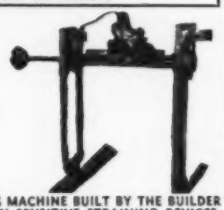

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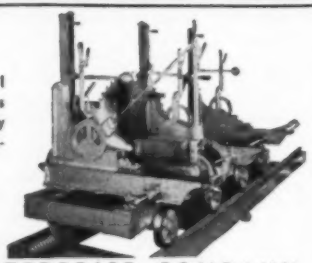

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Carl F. Gerlinger Dies

Founder, inventor, factor in the development of apprentice-training, the material handling industry lost a great friend and benefactor in the death November 13 of Carl F. Gerlinger, 73, at Dallas, Oregon. Owner and operator of the Gerlinger Carrier company, Mr. Gerlinger's death was attributed to a heart attack.

He was born in Neuwiller, Alsace-Lorraine, March 28, 1878, and learned his trade as a mechanic in the hard school of apprentice training from shop to shop in Germany. He came to the United States in 1901 and to Dallas in 1902 where he served as master mechanic on the Salem, Falls City & Western Railroad—then building from Salem to the timbered areas of the coast range. He founded the Dallas Machine and Locomotive Works.

With the success of the Dallas plant assured, Mr. Gerlinger soon branched out in the industrial field. In 1925 the Salem Iron Works was purchased and modernized. An affiliate, Salem Steel and Supply was organized later. Five years later, in 1930, he purchased the Klamath Machine Works and reorganized it as the Klamath Machine and Locomotive Works which he operated until he sold it in 1946. The Prineville Machine and Supply was organized in 1937 and in 1947 the newest of his affiliates, the West Salem Machinery Company, was established.

Coast Neutralizers

An interesting piece of equipment is being supplied the sawmill and plywood operators who have scale, rust and corrosion in their boilers and steam lines.

The Neutralizer reverses nature's action by setting up a greater voltage than is created by the boiler metals. The Neutralizer sets up a voltage by dissimilar metals (copper to zinc). This action gradually softens the old scale and it sluffs off going out thru the blow down.

The Neutralizers are sold by the Coast Neutralizer Corporation, 61 S.W. 2nd Avenue, Portland 4, Oregon.

Special Blower System at Coos Bay

The American Sheet Metal Works of Portland is installing a unique blower system for the Evans Products Co., Coos Bay, Oregon. The system is for a Woods 415M2 sizer which is capable of surfacing lumber at a maximum speed of 550 to 600 FPM.

Due to the material and the length of blow a specially constructed blower was designed for this installation. The suction side of the blower handles the material from the Woods sizer and in addition will also serve as a relay unit for a second planer, which, according to present plans, will be installed in the building at a later date. The blower discharges the material a distance of 740 feet through discharge line connected to a new dust collector located on the fuel bin.

United States Plywood Corporation announced the appointment of **George W. Allen** as manager of the company's sales and distribution unit in Fresno, Calif.

DOUGLAS FIR PRICES

#3 Common S2or4S 1x8" RL.....	99.75
#1 Dimension 2x4.....	110.75
1x4 B and BVG Floor.ng	$165-170
1x6 C&Btr. Drop Sid.ng	150-155
1x6 No. 1 K-B	80- 85
1x8	
1x10	
1x12	82- 87
No. 1 Common Timbers and Plank	
3x3 6-20	$ 90-$95
3x3 22-24	93- 98
3x3 26-32	101-106
3x10 6-20	82- 87
3x10 22-24	85- 90
3x10 26-32	90- 95
4x4 6-20	85- 90
4x4 22-24	88- 93
4x4 26-32	96-101
6x6 8-20	82- 87
6x6 22-30	85- 90
6x6 32-40	100-105
8x8 8-20	82- 87
8x8 22-30	85- 90
8x8 32-40	100-105
6x10, 8x10, 8-20	82- 87
6x10, 8x10, 22-30	85- 90
6x10, 8x10, 32-40	100-105
10x10, 12x12, 8-20	82- 87
10x10, 12x12, 22-30	85- 90
10x10, 12x12, 32-40	100-105
Douglas Fir Cross Ties	65- 70
No. 1 Dimension (Green)	
2x4 6-24	$ 70- 75
2x6 6-24	69- 74
2x8 6-24	69- 74
2x12 6-24	68- 73
Sel. Merch. (Green)	
1x4 6-20	$ 85- 90
1x8 6-20	95-100
1x12 6-20	100-105

Western Pine Prices

Following Delivered Prices, based on Past Sales, were reported to the WESTERN PINE ASSOCIATION by members during the period November 19 to December 1, 1951, inclusive. Both direct and wholesale sales are included and are based on specified items only. Two districts are given, one being the State of Illinois, outside of the Chicago Metropolitan district, and the other the State of Pennsylvania. Quotations follows:

PONDEROSA PINE

	Illinois, Pa.		Illinois, Pa.	
Selects S2 or 4S	1x8"		5/4 RW	
C. Select RL	236.25	251.50	276.75	263.46
D. Select RL	201.25	251.25	243.06	240.29
Shops S2S	No. 1		No. 2	
5/4	158.35	160.95	127.58	131.21
6/4	144.15	150.50	115.67	123.59
Commons S2 or 4S	No. 2		No. 3	
1x8" RL	130.81		95.93	104.25
1x12" RL		132.70	99.93	102.33
4/4 S4 Common S2 or 4S RW&L				

IDAHO WHITE PINE

Selects S2 or 4S	1x8"		6/4 RW	
Choice (C) RL	272.25	275.25		
Quality (D) RL..	235.25	237.58	252.75	254.75
Commons S2 or 4S	Colonial (#1)		Sterling (#2)	
1x8" RL	166.25	165.25	156.25	154.60
1x12" RL	196.25	192.75	161.25	160.45

SUGAR PINE

Selects S2 or 4S	4/4 RW		5/4 RW	
B&BTR RL	289.00	289.16	309.50	309.50
C. Select RL		275.50		299.50
D. Select RL		241.50		289.50
Shop SS2S	No. 1		No. 2	
5/4		166.50		127.50
6/4		165.50	113.75	
8/4		179.50		

LARCH-DOUGLAS FIR

#3 Common S2 or 4S 1x8" RL....	99.75
#1 Dimension 2x4 RL.....	110.75

Southern Pine Prices

1x4 Std. VG Flg. PE...	$210.00	$195.00	$163.00
1x4 Std. FG Flg. PE...	170.00	160.00	140.00
5/4x4 Std. Ceiling	170.00	160.00	140.00
1x6 Std. Drop Siding..	191.00	181.00	138.00
	No. 1	No. 2	No. 3
1x6 Std. Boards & S/L	143.00	84.00	74.00
1x8 Std. Boards & S/L	143.00	89.00	79.00
1x10 Std. Boards & S/L	148.00	89.00	79.00
1x12 Std. Boards & S/L	173.00	98.00	77.00

No. 1 Dimensions S4S

	12'	14'	16'	18'	20'
2x 4 ...	95.00	96.00	98.00	108.00	108.00
2x 6 ...	91.00	92.00	93.00	102.00	104.00
2x 8 ...	96.00	94.00	94.00	102.00	104.00
2x10 ...	104.00	105.00	105.00	113.00	116.00
2x12 ...	110.00	110.00	110.00	121.00	126.00

No. 2 Dimensions S4S

2x 4 ...	88.00	89.00	91.00	101.00	101.00
2x 6 ...	84.00	85.00	86.00	95.00	97.00
2x 8 ...	87.00	85.00	85.00	93.00	95.00
2x10 ...	88.00	90.00	89.00	95.00	97.00
2x12 ...	86.00	86.00	86.00	95.00	103.00

No. 3 Dimension S4S

2x 4 ...	70.00	72.00	75.00	81.00	81.00
2x 6 ...	70.00	71.00	72.00	78.00	78.00
2x 8 ...	71.00	70.00	70.00	75.00	75.00
2x10 ...	67.00	70.00	67.00	72.00	74.00
2x12 ...	64.00	64.00	66.00	74.00	76.00

Log Prices

Following prices have been quoted F.O.B. rafted in the Willamette River:

No. 1, Fir Peelers, generally $110.00. No. 2 Peelers, generally $100.00. No. 3 Fir Peelers, $80.00 to $85.00.

Douglas Fir Saw Mill Logs—No. 1, $65.00; No. 2, $52.00-$60.00; No. 3 $42.50-$50.00.

Hemlock—Selected Peelers, $60.00.

Hemlock Saw Mill—Peelers and No. 1, $55.00; Hemlock No. 2 and No. 3, now $40.00 to $42.50.

Some Hemlock at $40.00 Camp Run.

White Fir—Same as Hemlock or $1.00 less.

Noble Fir Peelers, $75.00; Sawmill No. 1, $60.00; No. 2, $50.00; No. 3, $45.00.

Cedar—Shingle, $40.00; lumber, $60.00-$115.00.

Spruce—No. 1, $60.00; No. 2, $45.00.; No. 3, $42.50.

Douglas Fir Wood Logs—No. 1, $20.00; No. 2, $10.00.

B.C. LOG PRICES

Fir—Log stocks remain steady according to C. D. Schultz & Co., Ltd., Vancouver. Standard logs are quoted at $55.00 to $65.00 for No. 3's, $65.00 to $75.00 for No. 2's and $75.00 to $85.00 for No. 1's. Peelers still selling at $80.00 to $90.00 for No. 3's, $85.00 to $95.00 for No. 2's and $95.00 to $105.00 for No. 1's. Cedar—Log stocks increasing. Shingle logs selling at $40.00 to $45.00 for No. 3's, $50.00 to $60.00 for No. 2's and $70.00 to $80.00 for No. 1's. Lumber cedar trading at $60.00 to $70.00 for No. 2's and $70.00 to $80.00 for No. 1's. Pee Wee and Tie cedar selling at $40.00 to $42.50. Hemlock and balsam—Stocks increasing slightly. Prices still $50.00 to $60.00 for No. 3's, $60.00 to $70.00 for No. 2's and $70.00 to $80.00 for No. 1's.

RED CEDAR SHINGLES

Royals	
1—24"-4/2	13.00-13.25
2—24"-4/2	9.00- 9.50
3—24"	6.25- 6.50
Perfections	
1—18"-5/2¼	9.50
2—18"-5/2¼	5.50- 6.25
3—18"-5/2¼	4.00- 4.25
XXXXX	
16"-5/2 #1	8.25- 8.75
16"-5/2 #2	5.50
16"-5/2 #3	3.75- 4.00

Douglas Fir Plywood

1-4 inch basis $85.00

Gardner-Denver air motor carriage feed drive at plant of Walter G. Brix Inc., Briceland, Calif.

BEARING SALES AND SERVICE

The logging, lumber and plywood industries have contributed a large extent to the success of a concern which has shown rapid growth in the past decade. As of recent date, Bearing Sales & Service, Inc., pioneer ball and roller bearing specialist in the Northwest, has moved to a new location in Portland. Greatly expanded facilities are provided by a new building housing Bearing Sales & Service at 1645 N. W. Hoyt St. and the SKF Industries, Inc. warehouse for the northwestern states at 1625 N.W. Hoyt St.

Bearing Sales & Service has also announced the opening of a Bearing stock branch in Roseburg, Oregon, November 1. Other offices are located in Seattle, Tacoma and Eugene.

In addition to complete stocks of SKF, Timken, Hyatt, New Departure, RBC, and Orange bearings, other products closely allied with bearings are carried.

This progressive company is headed by Ed Williamson, who has worked hard and conscientiously to render rapid service. Dean Wood heads the Oregon sales branches.

Whiting Bros., who operate a sawmill at Holbrook, Ariz., has opened a new mill at Fredonia, Ariz. The new mill has a double cutting band head rig and is expected to produce about 90,000 feet of lumber per day. The company obtains its logs from the North Kaibab National Forest. Fredonia is in the extreme northern part of Arizona. A truck road costing $200,000 has been built from the woods to the mill.

Cut costs, increase speed of your cleat operations!

California Type F Cleat Machine—standard of the Western pine industry—is designed for precision ripping of box cleats and other multiple-rip jobs involving short length stock. Power-driven feed rolls, mounted close together, insure positive travel through saws. Variable feed speed unit insures efficient stock handling. Separate motors drive saw arbor and feed rolls. *Write for details.*

CALIFORNIA SAW WORKS

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SERVING THE LUMBER INDUSTRY SINCE 1886

Manufacturers of California Circular Saws, California Cut-Off Machines. *Distributors from stock of* Norton Abrasives, Big Chief Knives, Jones & Orth Cutter Heads. 2287

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We manufacture and rebuild truck, tractor and industrial radiators. Built and reinforced to stand up under the toughest of logging conditions.

Special heavy duty cores carried in stock for practically all makes of trucks and tractors. Priced right. Prompt shipment. For a radiator that continually breaks out, try a Super-Hex Special. We guarantee all heavy built radiators for one year.

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Engine Cooling Specialists for 25 years

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GASOLINE DRIVEN
Manufacturer: M. L. Bayard & Co., Inc.
Type: IV
Center Drum Duty: 17,750# pull @ 42 fpm
Drum Stowage: 900 ft. ¾" wire rope—6 layers
Side Drum Duty: 2,250# pull @ 45 fpm
(Each) Side Drum Towage: 60 ft. ½" wire rope—4 layers
Engine Data: Chrysler Model T 118; Capacity, 47 BHP 1800 RPM
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(LOS ANGELES HARBOR), CALIF.
TELEPHONE—LOS ANGELES: NEVADA 6-2517

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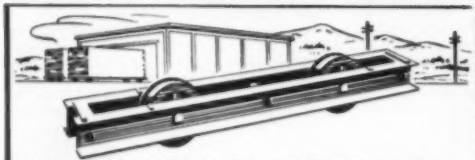
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another ALBANY TRIMMER

FIVE IMPORTANT ALBANY SOLENOID CONTROL VALVE FEATURES:

1. ALL STEEL Construction for durability.
2. Anti-friction bearings throughout.
3. Long table allows time for accurate grading.
4. Adjustable Cushion built into cylinders.
5. Independent ladder supports.

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We Also Manufacture Random Length Smooth End Wheel Type Trimmers.

Add Swanson Bros. Lbr. Co., Noti, Oregon, to the ever growing list of progressive mills who have increased production and decreased costs with the installation of an **Albany Air Lift Trimmer**

Because the **ALBANY Random Length Air Lift Trimmer** is designed **To Fit the Most Exacting Requirements**

ALBANY MACHINE AND SUPPLY COMPANY, Albany, Oregon
RENE FRITZ, MANAGER
TELEPHONE 1341

BUYERS GUIDE and CLASSIFIED SECTION

SPARK ARRESTERS AND ARRESTER CLOTH
American Sheet Metal Works, Portland
Pacific Wire Works Co., Seattle
Roebling's, John A. Sons Co., Trenton, N. J.; San Francisco, Portland, Seattle

SPEEDERS
Skagit Iron & Steel Co., Sedro Woolley

SPRAYING SERVICE
Harry Leckenby Spray Service, Seattle

SPRINGS
Betts Spring Co., San Francisco

STEEL STRAPPING
Brainard Steel Co.
Signode Steel Strapping Co., Chicago
Stanley Works, The, New Britain, Conn.

TIRES AND RECAP
General Tire & Rubber Co., Akron
Goodrich Co., B. F., Akron, Ohio
Goodyear Tire & Rubber Co., Akron
Firestone Tire & Rubber Co., Akron
U. S. Rubber Co., Truck Tire Div., New York, N. Y.

TORQUE CONVERTERS
Twin Disc Clutch Co., Seattle, Portland, Racine, Wis.

TRACTORS, EQUIPMENT AND ACCESSORIES
Allis-Chalmers Co., Milwaukee, Spokane, Portland, Seattle
American Machine Co., Spokane, Wash.
Caterpillar Tractor Co., Peoria, Ill.; Seattle, San Leandro, San Francisco, Portland, Spokane
Howard-Cooper Corp., Portland, Seattle
Hyster Co., Portland
International Harvester Co., Chicago
Kay-Brunner Steel Products Co., Los Angeles, Portland, Seattle
Oliver Corp., Cleveland Tractor Div., Seattle, Portland, San Francisco
Pacific Car & Foundry Co., Seattle
Wood Tractor Co., Portland

TRUCK LINES
Mitchell Bros. Truck Lines, Portland, Ore.

TRUCKS, TRAILERS, ACCESSORIES
American Machine Co., Spokane, Wash.
Beall Pipe & Tank Co., Portland
Ford Motor Co., Dearborn, Mich.
Fruehauf Trailer Co., Detroit, Los Angeles, Seattle, Portland, San Francisco
International Harvester Co., Chicago
Kenworth Motor Truck Corp., Seattle, Portland
Mack International Motor Truck Co., Seattle, Portland, San Francisco, Los Angeles
Page and Page Co., Portland
Peterbilt Motors Co., Oakland, Calif.
Reliance Trailer & Truck Co., San Francisco
Roberts Motor Co., Portland
Trailmobile Company, The, Berkeley, Calif.
White Motor Co., Seattle, Portland, San Francisco

TRUCK TRANSMISSIONS AND CONVERSIONS
Eaton Manufacturing Co., Cleveland, Ohio
Fuller Mfg. Co., Kalamazoo, Mich.
Kay-Brunner Steel Products Co., Alhambra, Calif.
Roberts Motor Co., Portland
Timken-Detroit Axle Co., Detroit

VALVES
Davies, E. C., Portland
Valvair Corp., Akron, Ohio

WEDGES—OAK
Western Wedge Co., Corvallis, Ore.

WELDING SUPPLIES
Industrial Air Products Co., Portland
Stoody Company, Whittier, Calif.

WINCHES
National Metal & Steel Corp., Los Angeles

WIRE ROPE
American Chain & Cable Co., Bridgeport, Conn.
Bethlehem Steel Co., San Francisco, Portland, Seattle
Broderick & Bascom Rope Co., Seattle, Portland, San Francisco
Columbia Steel Co., Seattle, Portland, San Francisco
Edwards Company, E. H., San Francisco, Los Angeles, Portland, Seattle
A. Leschen & Sons Rope Co., Seattle, Portland, San Francisco
Macwhyte Co., Kenosha, Wis.; Seattle, Portland, San Francisco, Los Angeles
Pittinger Equipment Co., Portland, Ore.
Roebling's Sons Co., John A., Seattle, Portland
Union Wire Rope Corp., Kansas City, Mo.; Portland, Seattle
U. S. Steel Corp., Seattle, Portland, San Francisco
Wickwire Spencer Steel Co., New York, Seattle, Portland, San Francisco

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Ilwaco Boat Works, Ilwaco, Wash.

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Veneer, Sawmill, machine shop equipment
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Prescott 7 ft. resaw, horizontal, with transfer chain and motors.
Pacific 54" resaw, tilt feed rolls.
Planer, 6x15, Pacific, 8-knife—round-head, ball bearing.
Prescott 7 ft. vertical resaw.
Transformers—600 K.V.A. 4400/2200 volts to 440/220 volts. 3 phase, 60 cycle G.E. Excellent condition.
1 Clark 3-ton Fork Lift—Rebuilt.
Ross Fork Lift Truck HT-19.
Hanchett Band Saw Shear #1—20".
Diamond Hog #45.

ENGINEER WANTED

MECHANICAL DESIGN ENGINEER, lumber mill experience, for work in our central consulting offices in Houston. Prefer design and layout experience in lumber mill sawing, sorting, handling, planing machinery, conveyors and equipment, log barking and chipping plants. Describe qualifications and training in writing.

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ESPERSON BUILDING
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WANTED: Woods superintendent, competent to supervise all phases of logging operation including road building. Must be thoroughly familiar with modern methods and able to secure low costs. Please write giving full details as to age, education, experience and annual salary requirements to TL Box No. 835, c/o THE LUMBERMAN, 71 Columbia St., Seattle 4, Wash.

WANTED:

Man to handle development and engineering of hydraulic and mechanical details in connection with log barking equipment. Interesting work with a progressive firm. Salary open.

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Fifteen years experience all phases manufacture purchasing, personnel. College graduate, pleasing personality, capable administrator and coordinator. Interested in connection with established concern. References. Write to TL Box No. 827 c/o the Lumberman, 71 Columbia St., Seattle 4, Wash.

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LUMBERMAN WITH 12 years managerial experience in Nebraska yard, would like position as asst. manager or yard foreman. Job on West Coast. Married man. Can give references. Write to TL Box No. 830, c/o THE LUMBERMAN, 71 Columbia St., Seattle, Wash.

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A heavy-duty 4" pitch with waterproofed pins.

The chain is extremely practical for heavy-duty conveyor use and its waterproofed quality gives it a long-lasting value for work into water.

Price, $2.00 per foot,
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80,000 FEET PORTABLE POWER CABLE

1/0 stranded copper rubber-covered, rated at 600 volts. Flexible enough for welding, tough enough for hardest usage.

Two 200' lengths on a single split reel 25¢ per foot, f.o.b. Los Angeles

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Band Mills—Resaws—Planers

1—Planing mill with latest Stetson-Ross #610-AI motorized matcher, position, heads etc. This mill is entirely complete including Irvington trimmer. Everything goes nothing else to get.
1—54" Berlin resaw rebuilt

Feed Engines

1—13 x 16 Sumner geared twin
1—7 x 9 Marion twin, direct
1—6 x 8 Brownlee twin, direct
1—Shotgun, 12" x 42" Western (new)
1—25 HP Skoon Elect. carriage feed

Grinding Equip.

1—used 150R Covel bandsaw grinder
1—used Covel gang saw grinder
1—new Armstrong #17 automatic cir. saw grind.

Edgers

1—4" x 30" Portland table type

Motors (Partial list)

1—300HP—514 RPM slip ring with starter
1—200HP—720 RPM sq. cg.
1—125HP—720 RPM sq. cg.
1—150HP—600 RPM slip ring
Several good used blowers

Misc.

1—used #35 Diamond Hog
1—used #85 Diamond Hog
1—87 CFM Gardner compressor
1—Fairbanks 12" x 12" compressor
1—Klamath 8" x 10" x 60" nigger
1—Pond dump winch
1—Skagit BU—125—3 drum yarder with 180 HP Cummins diesel, completely overhauled

Air cylinders — Valves
Steam cylinders — Speed reducers
Chain — Gears
Sprockets — Etc.

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The W. T. HUBBARD LUMBER CO.
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100 hp 900 rpm G. E.
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100 hp 1800 rpm G. E.
100 hp 1200 rpm G. E. slip ring
75 hp 1200 rpm West. slip ring
75 hp 600 rpm West. slip ring
60 hp 1200 rpm G. E slip ring
3— 50 hp 900 rpm G. E.
1— 40 hp 900 rpm G. E.
1— 30 hp 1800 rpm Sterling

A LARGE STOCK OF SMALLER SIZES AND GEAR MOTORS.

Cascade Machinery Co.
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Ponderosa and sugar pine, 4/4 clear, soft textured, lengths up to 48", widths up to 2", K/D to 10% or less, furnished S2S, molded to pattern or rough.
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USED EQUIPMENT

(PARTIAL LIST—WRITE FOR COMPLETE LIST)

BOILERS AND ENGINES

1—Atlas 35 HP diesel engine, engine.
1—16x15 H & G sidereams, 70x30 pulley Ald.
2—9x10 Atlas center crank engines.
1—10x12 Atlas center crank engine.
1—12x16 C & T twin engine, 60x30 pulley.
1—11x15 Willamette twin engine.
1—Used Waukesha 60 HP gas engine with clutch and drive pulley.
1—used Fairbanks Morse 20 HP type Y semi-diesel (hot) engine
1—used Duke Rotary Engine 5 HP 1" steam, 600 Rev.

NEW WORTHINGTON COMPRESSORS

1—new Worthington Mlk 164 cu. ft. compressor, 3 stage air cooled 25 HP motor, V-belt drive.
1—new Worthington M160 194 cu. ft. 40 HP V-belt drive.
Complete stock of smaller new Worthington compressors.

USED COMPRESSORS

1—Rix 8x6 sq. vert. 70 cu. ft.
1—Ingersol Rand 26 ft. 5 HP motor
1—Chicago 150 cu. ft. 25 HP motor
1—Ingersol Rand 853 cu. ft.
1—Ingersol Rand 6-7 cu. ft.
1—Ingersol Rand 400 cu. ft.
1—Ingersol Rand 160 cu. ft. gas driven (portable)
1—Ingersol Rand 1-5 cu. ft.
1—Chicago 350 cu. ft. 90 HP motor
1—Ingersol Rand 513 cu. ft. 75 HP motor

PUMPS

Complete stock of new Worthington Centrifugal Pumps.
1—used Smith Valle 8x6x8 Duplex 3"suction, 2" discharge
1—new Worthington 2x2x3 Duplex.
1—new Worthington 3½x4¼x4 Duplex.
1—new Worthington 4½x5½x6 Duplex.
1—new Worthington 6x8½x8 Duplex.
1—new Worthington 7½x10x8 Duplex.
1—used Gardner 6x4x6 Duplex outside center packed.
1—used Blake 4½x2x4 outside end packed (pot valve pattern), 175# steam 300# water pressure. Simplex discharge.
1—used Jeansville 8x5x8 outside end packed Duplex
1—used Smith Valle 8x6x8 Duplex 3" suction, 3" discharge

HOISTS

1—Hyde 6x8 dbl. cyl. reverse throttle, rebuilt.
2—American 6" x 12" dbl. cyl. sgl. drum rev. throttle sgl. geared pin. 7" gear 32x4" (Herringbone). 10x20 drum, rebuilt.
1—Murray 1 Works 6x10 dbl. cyl. drum reverse throttle sgl. geared 7x4 pinion, 32x4 gear drum, rebuilt.
2—new Electric Hoists dbl. drum. 22" dia.x22" long grooved for ⅜ or ½ line, speed 40' per min., line pull 18,000#, 25 HP, 1750 RPM direct current motor Enc volt triple compound, all enclosed.
1—sgl. drum hoist on 4-wheel truck, DC motor 12 HP 125 volt, 1750 RPM compound wound street car control, worm gear drive, 4½" dia. worm drum 10"x16", 2-7/16 shaft, as is.
1—used Electric Hoist 5 HP 220-440 volt dbl. compound 400#'s 30' per min.
1—5-10B sgl. friction Drum Hoist, 10 HP 1200 GE MB motor, self cont'd
1—new #40 American Hoist and Derrick, sgl. drum hoist, motor drive 10 HP, cap. 2000# at 100 ft.
1—Ledgerwood 8x10 dbl. cyl. iron gears and drum with 36T 1¼ P RC sprocket
1—2-ton 27 ft. 4" space Electric floor control Power Hoist

HOGS AND CHIPPERS

1—42" Chipper babbitt bearing 4-knife vail spout.
1—Diamond #40 hog babbitt bearing 17½x19" opening 40" rotor.
1—new Diamond #25 roller bearing hog.
1—new Diamond #35 roller bearing hog.
1—new Diamond #45 roller bearing hog.
1—used 18-IP M & M Chipper, 60"x20" opening, cap., 12,000# per hr.
1—Mitts & Merrill #10 paper shredder, cap 200# ⅛", 400# ¼".
1—used #48 Diamond babbitt bearing.
1—used #38 Diamond roller bearing hog
1—Williams #4XA 20x24 opening, cap. 10 to 12 tons per hr., 4⅞ shaft 2⅞x8⅝ solid balance wheel
1—Mitts and Merrill #28C Ridging Hogo cap. 40-0-2 10x12 scout
1—72" Chipper, belt drive, 3 knife

DRAG SAWS

1—Multnomah 7"x44" direct drive.
1—new 24" Electric Drag Saw.
1—Stationary Chain deck saw, 6 ft. bar.

CARRIAGES

1—9' band mill roller bearing 4th.
1—used screw block carriage, 9, 48" blocks, trucks and track, hand set works.
1—set 3 52" H & P Corley headblocks sgl. acting set works.
1—used carriage, 3 54" screw blocks, power set works, 5 HP motor, 6 sets trucks, 10" wheels, 60' V & flat track.
1—used Trout #4 Power set works for screw blocks.
1—Sumner set works for screw blocks.
1—10 and 12x9' full oscillating nigger.
1—6 and 10x8' Filer & Stowell full oscillating steam nigger.
1—New Wheland 2 saw 1 man Trimmer 6 to 24 ft.
1—Simonson 8" shaft, 1 hook arm, 1 push arm, 3 helper arms, 12x36" cylinder.
400 ft. 1¼x6x1¼ conveyor chain.
200 ft. 1¼x6x1¼ conveyor chain.
New ¾x3" and 1" long link conveyor chain.
New 60, 74, 78, 83 and 124 chain.
105 ft. 1¼"x8 log haul chain.
15 steel chairs 6"x9" for 1" chain.
1—9-block 60" Carriage, Dbl. I-beam blocks, Power Set Works taper knees, 6 trucks, 12" steel V and flat wheels Timken Bearings
1—Allis 3-block 72" carriage, 24 Trout Set, steel frame, taper knees.
1—Log stop and Loader 5-15/16"x20 ft. shaft, 3 steel arms 18"x24" cyl.
1—Log stop and Loader 5-7/16x30 ft. 4 steel arms 12x30 cylinder
1—Low down type steam nigger 10x60 cyl. 6x24 helper cylinder
1—3-block 60" Carriage, Dbl. I-beam blocks, Power Set Works taper knees, 6 trucks, 12" steel V and flat wheels
1—used 3-block Carriage, 48" steel carriage frame 20' chain head blocks, Hydraulic dogs, Pump, 3 HP motor, Andrus Aut. Set Works, 5 HP motor, 6 trucks, 10" 2-3/16 axles, Roller Bearing, 60 ft. 30# V and flat track.
1—Allis 3 block 72" carriage, 24 Trout Set, steel frame, taper knees.
1—Log Stop and Loader, 5-15/16x30 ft. shaft, 3 steel arms, 18x24" cyl.
1—Log Stop and Loader 5-7/16x30 ft. 4 steel arms, 12x30 cyl.

EDGERS

1—New Wheland 2"x24" 3-saw roller bearing.
1—used P. I. Works 6"x42" 4-saw stub lever.
1—4-saw lath holter, 3 20" 17' saws.
1—new 6"x54" 4-saw stub edger, ball bearings, 22" saws.
1—used 6-saw lath or cleat machine
1—used Wheland 4"x44" 4-saw table edger 16" 17' saws.
1—used American Jr. 4x32" table edger.
1—used Tower 4" x 36" table edger 30 HP motor

STEAM FEEDS

1—5x6 twin feed.
1—new 5x6 Spe_D twin feed.
1—6x7 twin feed.
1—8x10 twin feed.
1—12"x36" shotgun feed
1—14x18 P&H (Beck) twin feed direct, 48"x14" drum
1—12x18 P&H (Beck) twin feed direct, 36"x16" drum
1—4½x5 twin feed.
1—7"x30" shotgun feed.
1—10"x12 ft. shotgun.

RESAWS

1—Fay & Egan 36" circular resaw B. B. Arbor tilting rolls.
1—American 24" circular motor driven.
1—Cordesman 42" band resaw, 8" opening babbitt bearings 25 HP. motor V-belt drive.
1—Mershon 54" LH vertical band resaw, tilting rolls, 8" opening, babbitt bearings, 40 HP motor.
1—American #4 48" band scroll and resaw, 8" blade, cap. 20" V, opening 6" ball bearing.
1—Mershon 48" vertical resaw, babbitt bearing RH.
1—Mershon 54" vertical resaw, babbitt bearing LH.
1—Yates VS9 64" Vertical resaw, 8" blades, RH machine LH set works
1—new Trojan Circular Resaw, cap. 14"x17" opening, air Jam rolls tilt for bevel sliding
1—Berlin #293 44" Vertical Re-saw 5" blade, cap. 24" Vee, 10½" thick Tilting rolls, 40 HP motor

PLANERS, SURFACERS & MOULDERS, DBL. PROFILLERS

1—#94 6"x9" 6-knife matcher.
1—#94 Berlin 6-knife matcher, 6"x15".
1—Berlin #48 10x30 sq. head planer.
1—2x4" motor drive moulder.
1—American 7" 4-side sq. head moulder.
1—H & B 5" 4-side moulder.
1—American #44½ 30"x7 2-knife surfacer, sec., in feed rolls.
1—Berlin 6"x24" 2-knife surfacer, sec. infeed rolls.
1—Cordesman 8"x26" 2-knife surfacer, sec. infeed rolls.
1—American #77a-6x15 6-knife matcher dbl. profiler.
1—American #128 8x30 4-knife Matcher, with extras
1—Berlin #44 6x24 4-knife matcher, with extras
1—American #44½ 30"x7 2-knife surfacer, sec. infeed rolls
1—Yates 91 6x15 8-knife Matcher Dbl. profilers
1—Yates 16" x 30 sq. head riger, belt drive P18
1—American 22 Band Rip, 42" wheels 3½" blade 12" capacity

RIP SAWS

1—Madison #207 straight line rip saw, 15 HP 3600 RPM motor.
1—Greenlee self-feed rip saw, table 42"x89".
1—Mershon #1 Band Rip, 44" wheels, 4" blade, 12" capacity

PLANER KNIFE AND SAW GRINDERS

1—new Dependable #99A 36" motor drive semi-automatic.
1—new Dependable #99A 36" motor drive, full automatic.
1—new #101A sidehead grinder, motor drive.
1—new #102A sidehead and profile grinder, motor drive.
1—Covel #120 LH 16" band saw grinder.
1—new 10" HH motor drive, band saw grinder.
1—Hanchett 12" RH band saw grinder.
1—Covel #201, 16" motor drive.
1—Covel #150 HR 16" BB arbor.
1—Covel #118 16" RH band saw grinders.
1—new Colla hand gummer, cap. to 40" motor drive.
1—automatic cir. saw grinder, cap. 60".
1—Covel #141B Blacksmer hand cir. saw grinder, cap. 12" to 72".
1—Covel #58 aut. cir. saws, 12" to 72" and band saws to 16".
1—Covel new #48 small hand gummer 40".
1—Covel #120 12" LH Band Saw Grinder, motor drive
1—Covel #140 LH 14" Band Saw Grinder
1—used Bridgeport 60" knife grinder, 26x1¼ wheel
1—Covel new #46 small Hand Gummer 40"
1—new leveling block 4½"x16"x60" 1000# Hardface
1—Covel 10" solid roll stretcher (bench type)
1—Covel 8" LH #80 Band saw Grinder
1—Covel 16" LH #20 band saw grinder.
1—Ross #12 42" Lumber carriage with carrier blocks

AGENTS FOR WHELAND CO., CHATTANOOGA, TENNESSEE
Bend Mills, Carriages, Circular Sawmills, Edgers and Trimmers
AGENTS FOR DIAMOND IRON WORKS, MINNEAPOLIS, MINNESOTA
New No. 25, No. 35 and No. 45 Hogs in stock

PORTLAND MACHINERY CO.

208 S. W. First Avenue ATwater 6555 Portland 4, Oregon

LUMBER HANDLING EQUIPMENT

LUMBER CARRIERS

1—Series 90-6544 Ross 42 x 53 package 42 inch bolster
1—Series 90-7056 Ross, 52 x 58 package 54 inch bolster
1—Series 90-7956 Ross, 52 x 67 package 54 inch bolster
1—Series 90-8556 Ross, 52 x 73 package 54 inch bolster
1—Series 11-6044 Ross, 42 x 48 package 42 inch bolster
1—Series 12-6044 Ross, 42 x 48 package 42 inch bolster
1—Series 80-6056 Ross, 52 x 48 package 54 inch bolster
1—Series 70-6651 Ross, 48 x 54 package 48 inch bolster
1—Series 70-6657 Ross, 52 x 54 package 54 inch bolster
1—Hyster M2-4560, 42 x 48 package 42 inch bolster
1—Hyster M2-5166, 48 x 54 package, 48 inch bolster
1—Hyster M3-5670, 52 x 54 package, 54 inch bolster
1—Hyster "Utility"—DP4, 42 x 42 package, 42 inch bolster
1—Hyster "Utility"—CP-4565, 42 x 53 package, 42 inch bolster
1—Hyster "Utility"—CP-4560, 42 x 48 package, 42 inch bolster

LIFT TRUCKS

1—New Ross Model 15 SH 15,000 lbs. capacity, 9:00 tires, hydraulic hoist, power steering
1—Ross Model 15 HT, 15,000 lbs. capacity, 9:00 tires, hydraulic hoist
1—Ross Model 15 LL, 15,000 lbs. capacity 17' 6" Lift, 9:00 tires, hydraulic hoist, power steering, side shift carriage
1—Ross Model 18 HT, 10,000 lb. capacity, 10' Lift, 7:50 tires, power steering
1—Ross Model 12 HTH, 18,000 lb. capacity, 17' 6" Lift, 10:00 tires, power steering
1—Ross Model 14 HT, 16,000 lb. capacity, 17' 6" Lift, 9:00 tires
1—Hyster RT 150—15,000 lb. capacity 17' 6" Lift, 8:25 tires, power steering, creeper gear
1—Hyster KT, 12,000 lb. capacity, 17' 6" Lift, 7:50 tires, chain hoist

PLANING MILL EQUIPMENT

PLANER & MATCHER

1—American 77A, 15 x 6, double profiles, 8 knife, side heads, jointers, belt drive
1—Berlin #90, 6 x 9, 6 knife, 1 pr. side heads, jointers, belt drive

MOULDERS

1—Woods #702, 6 x 12, 5 head, set side heads, belt drive with motor
1—Berlin #108, 8 x 16, square head, 1 pr. side heads, belt drive
1—Woods #131, 4 x 8, slip on type heads, round top and bottom heads, belts, jointers
1—American No. 8, 4 x 8, square head, 1 pr. side heads, 15 HP motor & starter

RIPSAWS

New General Machinery No. 7, Self Feed Rip Saw, motorized, 12" arbor for gang ripping
American No. 1 44" Band Rip Mattison No. 241 Straight Line Rip—7½ HP motor
New General Machinery Co. Automatic Planer Feed Tables for immediate shipment
New Knife Balance Scales for Planer and Moulder Knives.

RESAW

1—Mershon 66" R.H. with complete filing equipment, several saws

MISCELLANEOUS

Berlin #213 Glue jointer
American Double Surfacer, 26 inch, square head
Berlin #196 24" hand jointer, square head

ALL EQUIPMENT SUBJECT TO PRIOR SALE
WIRE-PHONE-WRITE FOR COMPLETE DETAILS

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NEW CHEV. ENGS., COMP.
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NEW 25-A WHITE ENGS., COMP.

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160 AX WHITES, COMP., LIKE NEW.
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450 RED DIA. INT. COMP. Less accessories.

MARINE BARGAINS

GM 671 diesels, comp. with 3 to 1 red. gear.
CHRYS. Crown, comp. with 2½ to 1 red. gear.

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CLARK, 6000-lb. fork-lift trucks, 90% new.
ROSS straddle lbr. carriers, 54x68; 90% rubber.
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D-4 CAT., N. gauge, only 1 mos. use. 90% new.
200-HP. HERC. diesel power plant.
25-KW. gen. plant, 110-208-V., 4-wire.
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Monthly Payments—Bank Terms

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all sizes . . . AC & DC
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FOR SALE

One steel rack and pinion 3 block sawmill carriage, 47" block opening. Overall length 19', overall width 9'-6", width of trucks 5'-4", equipped with air operated boss dogs, and taper cylinders, chain skid and hook dog. #3 trout type motor driven set works. 5 trucks with 16" ball bearing wheels. 50' each of "V" and flat rail. Riveted to ⅛" x 10" plate. Can be seen in operation at **TYGH VALLEY LUMBER COMPANY** at Tygh Valley, Oregon.

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Remanufacturing plant located at Willits, Calif. on main line NWP 350' private spur, 5 acre site includes 2 acres heavy black top and two acres heavy gravel fill, 4 room modern office building, loading dock 20 x 100, 1 building 40 x 96 and 1 building 40 x 80 with sprinkler system, 50 foot sorting table, electrical wiring and switch gear, new four fan 150 HP blow pipe system and burner.

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WILLITS, CALIF.

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for sale . . . every logging equipment need at money-saving prices!

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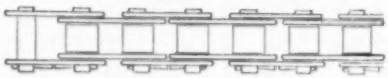

COMPLETE NEW STOCK AVAILABLE in following standard sizes: 60-80-100-120-140-160. ALSO COMPLETE STOCK OF CONVEYOR CHAINS

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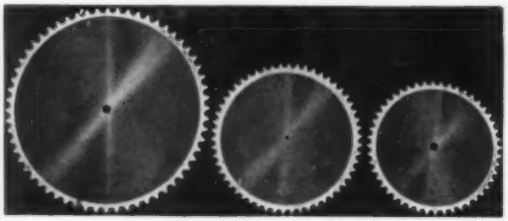

We will cut sprockets of any size up to 6 inches in thickness, up to 13 feet in diameter, with any number of teeth of any pitch required, for use with any type chain, including No. 78 conveyor chain. We also cut Ring Gears and Spur Gears . . . Worn Sprockets repaired . . . same day order received!

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"S & W" Master POND or Dry Deck SAW

HIGH CUTTING SPEED RANGE of 95 to 140 strokes per min. Rocker motion imitates hand sawing. Clears the kerf at every stroke. No clogging! When cut is finished, saw is raised by means of a clutch connected to the driving gears.

Adapted to all size Pulp, Veneer, Plywood and Shingle Mills.

Standardized in 3 Models 24", 30" 48"

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15" x 6" Yates Planer & Matcher, 6 knife cylinders. Double Profile

36" Smith Endless Bed Sander, three drum

30" Woods #450-B Ball Bearing Surfacer, 10 knife cylinders

8' Western Multiple Plywood Cutoff Saw, Ball Bearing

54" Yates Horizontal Resaw

Ideal Twin Steam Engine

Over 100 other machines in our Seattle Stock

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Reduce Steam and Air Consumption

50 to 80%

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CLYDE Yarders, Loaders and Hoists.

BUCYRUS-ERIE Shovels — ⅜ to 2½ Cu. Yd.

JOY Air Compressors, 3 to 17,750 c.f.m.

TELSMITH Crushing Equipment.

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Complete Line of LOGGING, CONSTRUCTION & INDUSTRIAL EQUIPMENT

SAW MILL MACHINERY

1—Rack and pinion 60" opening heavy duty steel carriage; air dogs, No. 3 Trout electric set works, steel frame, free wheeling carriage trucks, 56 ft. 90 lb. rail on plates.
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1—Rack and pinion 36" opening heavy duty steel carriage; electric tong type dogs, Trout type electric set works, steel frame, trucks and 56 ft. flat and Vee rail.
1—Klamath Iron Works 4" x 24" Eastern type, 3 saw, edger with front table, shifters, and saw collars. All anti-friction bearing.
1—25 HP 1200 RPM 3P 60C 440V G. E. motor, starter and Vee belt drive.
1—2 staggered saw—push & pull 16 foot lumber trimmer with ball bearing mounted saw arbors, head and tail sprocket shafts, bearings, sprockets, 5 chains with attachments and wood frame.
1—Houston-Stanwood Gamble 10" x 18" slide valve steam engine with 84" x 16" flywheel.
1—Fleming Harrisburg Automatic 12" x 16" twin steam engine #E27 with direct connected G. E. 150 K. W. 3P 60C 480V generator 225 RPM flywheel 12 KW exciter and switch board.

PLANING MILL & BOX FACTORY

1—Woods #404-B—6" x 30" babb. bearing, belt driven, 8 knife matcher with; belts, hoods, home made ripping attachment and power driven hold-down rolls, serial #20445.
1—100 HP 3P 60C 440V Westinghouse motor and manual starter.
1—25 HP 1800 RPM 3P 60C 440V Century motor, starter and Vee belt drive to ripper.
1—Wood frame 5 roll feed table.
1—Mershon Ideal 46" single vertical babb. bearing resaw with gear motor on feed rolls and 25 HP 3P 60C 440V motor, starter, Vee belt drive.
1—New type A Mitts and Merrell drum type hog, Serial #E-7473 with Faulk coupling for motor drive 10 x 11 opening and made up for side delivery to blower system. Recommended HP 25.
1—Eby box shook automatic tie-up machine complete with; motor, starter and spare parts.

Complete small moulding mill equipment including; 6" Bamford-Premier 4 spindle motorized moulder, Turner single vertical tilting roll band resaw, Mershon band rip saw, 2 swing cut-offs, DeWalt saw, blowers, cutterheads, knives and grinding room machinery—immediate delivery.

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DIESEL AND GAS
These Generators Are Available "As Is" or Rebuilt
Caterpillar D-8800, 50-kw.
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Caterpillar D-4600, 30-kw.

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IMMEDIATE DELIVERY
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THESE MACHINES HAVE BEEN THOROUGHLY REBUILT AND ARE LIKE NEW—ALL SIZES
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Hard-to-Find Equipment
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CRUISER CRANES
LIMA LINK-BELT, GENERAL
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CRAWLER CRANES
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2 Northwest model 80-D.
Bucyrus-Erie 15-B shovels, hoes or draglines.
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General cruiser crane, ¾-yard.
Lorain Truck crane.
Link-Belt truck crane.
Osgood crawler crane.
These machines are equipped and ready for immediate delivery.
Also available in our yards for your inspection all sizes of dragline buckets and clamshells.

ATTACHMENTS
Clamshell and Dragline Buckets.
Just received over 250, all makes, sizes.

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For Any Machine

COMPRESSORS
Pile Driving Hammers and Leads
IF IT'S LOGGING
or construction work, we have it.

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LA-PLANTE—WOOLDRIDGE

SPECIAL
WINCHES—Tulas, truck winches.
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TANKS—PONTOONS
OVER 13,000 NAVY SURPLUS FOR IMMEDIATE DELIVERY. BUY 1 OR 1000 . . . IDEAL FOR USE AS LOGGING PONTOONS, BARGES, FLOATS OR PONTOONS, EASILY CONVERTED FOR WATER, FUEL, SEPTIC TANKS, ETC.

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Government surplus, 250-ton. Ideal for logging roads, etc. Interlocking type.

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ROSS "90" CARRIER
64"W x 66"H PACKAGE

$3950 F.O.B. NEW ORLEANS

MECHANICALLY GOOD
TIRES FAIR TO GOOD

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TENONER OR CUT-OFF
WILKIN-CHALLONER NO. 720
Chain-feed, double-end cut-off saw, 144 x 62 in., with 10 h.p. direct-connected saw arbor motors. Ball-bearing. With provision for tenons and copes.
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Turn your waste sawdust into dollars, 30 proven formulas, complete with facts and details, $2.00 postpaid.
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POSITION WANTED
Logging superintendent or foreman, available after January 1, 1952. Twenty-one years logging experience, nine years as foreman, in West Coast Operations. Will go anywhere. Best of references. Please reply to TL Box No. 833, c/o THE LUMBERMAN, 71 Columbia St., Seattle 4, Wash.

GEORGE C. HAYNER MACHINERY CO.

NEW - MACHINERY - USED

1 Used 24" Swede Gang, mfg. by Heaps Engineering Co. Complete. Available at once.
1 84" Mershon Band Resaw.
1 12 x 36 ft. shotgun feed.
New Baby Simonson 2 cy. log turners.
1 1000 K.W. Allis-Chalmers Steam Turbine, 440 Volt, Comp.
1 Used 11 ft. Allis Band Mill.
1 Yates C-1 10" 'leavy Moulder.
1 8 x 10 Sumner Steam Feed.
1 8 ft. Prescott Band Mill.
1 48" R & P Carriage.
1 10 x 36" Shotgun Feed.
1 8 x 48 Murray Table Edger.
1 12 x 84 Simonson Log Turner.
1 54" Gunderson Resaw, Complete.
1 Murray, Heavy 6 saw Bolter.
1 Murray, Heavy 6 saw Stripper.
1 Covel No. 82 Stretcher, 14" saws.
1 No. 35 Diamond, Ball-Bearing Hog.
1 Cable Sorter, 4 lines, Complete.
1 Rip and Split Resaw outfit with 54 Yeates Ball Bearing Band, Complete.
1 Stetson Ross 8 x 15—8 knife P & M, with motor driven side Heads, through Gear Box, 75 H.P. motor belted to top and bottom Heads. 30 H.P. motor on side Head drive, Feed Table, Feed up chains for carrier loads, break down chains. Reeves drive on feed with 20 H.P. motor, Blower system with 50 H.P. motor on fan, Sortine Table, Trim saw and feed up chains, Gear Head motor drives on all. Complete in setting.
New Planer Feed Tables.
1 60" 4 Block Sumner Carriage, Trout Set Works.
1 40 ft. Air Trimmer.
1 12 x 12 Ingersol Rand, Class ER-1, 340 C.F.M.
See our New 66", 6 Roll Ball Bear. right or left Hand Resaw.
See our New 54" Heavy Duty Ball Bear. right or left hand Resaw.
See our New Ball Bearing Band Mill, built 54" to 72".
2 500 B & W Water tube Boilers, Complete, Code 160#.
2 72 x 18 H.R.T. Boilers, Complete, Code 150#.
1 12 x 72 Sumner Edger.
1 Used 8 ft. Top Band Mill Wheel.

1133 S. W. FRONT AVENUE
PORTLAND 4, OREGON

FOR SALE

550 KVA Diesel Electric Power Plant complete with switch gear, etc.
8'-0" Wheland L. H. Band Mill
8" x 72" Filer & Stowell 5 Saw Edger
L & W Master Pond or Dry Deck Saw

All items priced for quick sale

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FOR SALE
18,000 ft. Diesel-electric mill and logging equipment. Timber available. Please reply to TL Box No. 809, c/o The LUMBERMAN, 71 Columbia Street, Seattle 4, Wash.

FOR SALE
2-Filer & Stowell 8' Horizontal Resaws
1 Complete Double 8' Band Mill, electric driven
HAMILTON MACHINERY EXCHANGE
MENOMINEE, MICHIGAN

WANTED TO BUY: Good used 6 or 7 foot right hand band mill exclusive of carriage and power unit. Please reply with full particulars and price to TL Box No. 836, c/o THE LUMBERMAN, 71 Columbia St., Seattle 4, Wash.

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SAWMILL AND LOGGING OPERATORS

BADER & CARROLL

YEAR-END WAREHOUSE CLEARANCE OF

QUALITY MILL AND LOGGING EQUIPMENT

Wire or Write for Prices!

Buys of the Month

PLANERS

1 Yates A4 - 6x30 - 6K Round Rebuilt.
1 Woods 404 - 6x15 - 8K Round with Profiles.
1 Yates 91 - 6x20 - 6K Round with Ripper.
1 Woods 14 - 14x30 - 4K Square Rebuilt.
1 Berlin 41 - 12x30 - 4K Square Rebuilt.
1 Mississippi No. 2½ - 6x20 - 4K Round Rebuilt.
1 Woods No. 110 - 6x12 - 4K Square with RB.

ROUND SIDE HEADS

Feed Tables - Motors and Belts Available for these.

MOULDERS

1 American No. 505 - 4 Head - Square 12" Top 10" Bottom 4" Side Heads.
1 Levi Huston 9"x4" - 4 Head Rebuilt Round Heads.
1 Woods No. 110 - 6x12.

ELECTRIC MOTORS

NEW STERLING IN STOCK:

Squirrel Cage - ½ to 20 HP. - All speeds every size.
Gearhead 1 HP. to 10 HP. Several speeds every size.
Speedtrol (variable speed). Factory shipment.

REBUILT:

½ HP. to 100 HP. - Almost all speeds every size.

REBUILT MOTORS AND REDUCERS:

5 HP. GE Motor Sumner gear 193 RPM.
7½ HP. GE Motor Sumner gear 193 RPM.
5 HP. GE Motor Wade gear 14 RPM.
5 HP. Westinghouse Motor Western gear 18 RPM.
7½ HP. GE Motor Sumner gear 23 RPM.
7½ HP. GE Motor Western gear 12 RPM with brake.
10 HP. Westinghouse Motor Western gear 18 RPM with brake.
7½ HP. GE Motor Open gear 25 RPM.

TRANSMISSION EQUIPMENT

New malleable chain in stock: No. 80, No. 74, No. 78, No. 82, No. 124, No. 130, No. 131, No. 138.

Good stock used chain in popular sizes.

All sizes refuse conveyor and log haul available.

Roller chain: New Atlas ⅜" to 2". Large stock of good used all sizes.

We can supply new or used: Pulleys, shafting sprockets, gears, belting, etc.

Long Link steel chain

SPECIAL
COMPLETE PLANING MILL

1—SR No. 9 - 8x15 Planer and Matcher with 30 HP. Direct gear driven side heads 75 HP. motor on CTR shaft - Belts - Hoods - blower system - - Steel feed table - Haul-up chains - Incline chain break down to feed table - Drop table back of planer - 75' green chain with jump rolls to trimmer - Chain table to trimmer - Motorized undercut trimsaw with stop bar and gauges and gravity roll return to green chain - Each unit individually driven by electric gear head motors - All in good operating condition - AVAILABLE NOW.

FOR IMMEDIATE Delivery

1 Turner No. R42—Tandem Twin Resaw. 42" motorized, almost new.
1 New Heaps Circular Resaw—capacity 16"x12", air set.
1 Rebuilt American No. 4 Circular Resaw—capacity 8x6.
1 Rebuilt American No. 6 Circular Resaw—capacity 8x12.
1 Mershon 84" Ball Bearing Resaw—Blades and Motor.
1 Berlin No. 283—54" R.H. Rebuilt Vertical Band Resaw, with Motor Driven Variable Feed Roll Drive.

GOOD BUYS IN MACHINERY AVAILABLE From Our Stock Now

2 New Tower One Man Trimmers. 2 saw 6' to 20'. Belt drive.
1 New Tower 5x42 Edger. SKF bearings. 4—18" saws. RH belt drive.
1 Wheland 4x32—3 saw edger.
2 New Tacoma Edgers. 3 saw table type. 4x32.
1 American 32" Band Saw.
1 Sinker Davis Self Feed Circular Rip Saw—Gang type.
1 Automatic Smooth End Trimmer. 24 ft. 11 saw.
1 Crescent 8x24 Single Surfacer.
1 Smith 8x24 Single Surfacer.
1 Fay & Egan No. 156, 7x24 Single Surfacer.
5 Rebuilt Motorized Swing Saws.

AIR COMPRESSORS

1 Ingersoll-Rand 160-foot gas driven portable on steel wheel cart.
1 Ingersoll-Rand XB2, 15x9x12, 513 CFM 2 stage.
1 Ingersoll-Rand Imperial Type 10, 17x10x14—Horizontal duplex 2 stage 677 CFPM.

FILING AND GRINDING ROOM EQUIPMENT

BAND GRINDERS

1 Hanchett No. 150L with Drophead to 20", Rebuilt.
1 Covel No. 130L - Rebuilt to 20".
1 Hanchett No. 133R - Rebuilt Motor Driven to 7".

ROUND SAW GRINDERS

1 Hanchett No. 136—Rebuilt Hand Gummer for Trim Saws to 36".
1 Covel No. 768—Rebuilt Automatic Rip and Cutoff 8" to 56".

New GISSE HAND GUMMERS

12" to 72".

ROLLER STRETCHER

New Gisse Bench Model to 10".
New Gisse Floor Model to 16".

KNIFE GRINDERS

New Rogers 32" Motorized Fully Automatic.
New Dependable - 30" Motorized - Semi Automatic.
New Dependable - 36" Motorized, Automatic.
New Dependable Cutterhead Grinders.

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IRVINGTON MACHINE WORKS
Cutoff saws—Automatic and Selective Trimmers.

DEPENDABLE MACHINE CO.
Knife and cutter head grinders—Moulders—Ripsaws.

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18" & 24" Log Gang Mills—Circular Resaws.

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Electric Motors — Gear Heads — Variable Speed Motors.

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Knife Grinders.

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PORTLAND 4, OREGON

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DONKEYS

1—8U 140 Skagit Yarder with 140 HP Waukesha engine, (3 drums) GK
1—8U 140 Skagit Loader with 135 HP Chrysler Industrial engine
1—2-drum Mundy American friction hoist
1—2-drum Mundy friction hoist

CRANES & CARRIERS

1—15 ton Browning hoist R.R. crane 60' boom, oil burner
1—25 ton P & H 36' span Bridge crane
2—Model 11 Ross Carriers, pneumatic tires
2—Model CP-7 Willamette carriers, 1935

USED MOTORS

1—100 HP 1800 RPM U.S. B.B.
1—100 HP 1200 RPM Allis
1—30 HP 1200 G.E. slip ring with controls
1—20 HP 1200 G. E. slip ring
1—15 HP 1200 G.E. slip ring
2—15 HP 1200 G.E. slip ring with grids
1—50 HP 900 U.S. ball bearing
2—30 HP 900 U.S. ball bearing
1—75 HP 900 RPM, 440 V. Westinghouse B.B

REDUCERS

1—Worm gear 7½ HP capacity 750:1 ratio
1—Worm gear 5 HP capacity 1000:1 ratio

WELDERS

1—300 amp Lincoln driven by a 6 cylinder GMC engine
1—400 amp G.E. welder, Electric
1—150 amp Lincoln 220 V. upright

GRINDERS

1—99A5-36 Dependable Knife grinder, new
1—21 Gawley RH Band saw grinder
1—12 x 14 x 5 leveling block
1—42" segment grinder for shingle saws

SAWMILL EQUIPMENT

8" and 10" x 6' oscillating Hill Nigger
60" 4-block rack and pinion carriage Trout setworks
54" 3-block screw carriage AC set works
1—F & S head block 72"
1—5-saw Lamb gang bolter
1—#60 Diamond heg, babbitt bearing, steel rotor
1—12 x 7 x 12 F & M feed pump, outside center packed

BOAT SPIKES

½ x 7 galv. ½ x 14 galv.
½ x 8 galv. ⅝ x 8 black
½ x 9 galv. ⅝ x 10 galv.

ROLL CASES

6—10 x 20 on 12" channel with roller chain
7—10 x 20 on 12" channel with roller chain
7—12 x 24 on 15" channel with miter gears

MISCELLANEOUS

7—Sumner standard shingle machines all electric, complete with saws and controls
1—135 HP a 1000 RPM LeRoi gas engine, stationary
2—Twin City gas engines out of N.W. cranes
1—10 x 10 Link reversing twin "Ideal" steam engine
30—4" E.H. Wheatley Gate Valves
1—30" gate valve
25,000'—1" black pipe, (very good)
1—Jarecki 2½ to 6" pipe machine
1—Williams 4" pipe machine
1—36" West side band saw
1—5 ton chain block, Hercules
1—Core gear and pinion
1—PM power saw 30" blade
1—Car hoist with 12" x 6' hydraulic cylinder
2—72" x 18' HRT boilers
1—S.E. Fire Box 72" Washington code boiler
1—Stetson Ross Handy saw, 440 V. 5 HP motor
3—333 KVA Westinghouse transformers 2200 to 440 V
1—#10 Jointer 2 knife roundhead 24"
1—235 HP Hesselman Diesel air equipped and Skagit Transmission

GOLDSTEIN & BLOCH

Box 33 AB. 1234 ABERDEEN, WASHINGTON

MODERN RE-MANUFACTURING PLANT FOR SALE

All Electric plant, complete with planer, re-saw and rail loading facilities. 75M average daily planer capacity. Located heart Southern Oregon lumber area. Write for particulars to TL Box 827, c/o THE LUMBERMAN, 71 Columbia St., Seattle, Wash.

TIMBER FOR SALE

10,000,000 ft. Ponderosa Pine near Enterprise, Oregon. Accessible to good road, easy logging show.

BROWN & BROWN, INC.
Lewis Building Portland, Oregon

FOR SALE

No. 4 Filer & Stowell 3-block carriage, complete with electric set works and dogs. Good condition. Can be seen in operation at **TWISP WAGNER LUMBER CO.**, TWISP, WASHINGTON. Available about March 1, 1952.

LUMBER CARRIERS & LIFT TRUCKS

For sale, rent, or lease with option to buy.
All Equipment Remanufactured—
90 Day Guarantee

2—Hyster RT-150 Lift Trucks . . . $6,500.00 Each
2—54" CP Willamette Carriers . . . 3,500.00 Each
2—42" CP Willamette Carriers . . . 2,750.00 Each

WESTERN DRY KILN & EQUIPMENT CO.
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FOR SALE

30 M. capacity sawmill and planing mill complete with side track facilities. Also approximately 7 million feet of timber with all logging equipment. Plant and logging equipment in A-1 condition and full operation. Inquire TL Box No. 834, c/o THE LUMBERMAN, 71 Columbia St., Seattle, Wash.

FOR SALE

One 1948 Allis-Chalmers HD-19 Tractor, single drum inch and angle blade. Excellent Condition. Talent Sawmills, Inc., Talent, Oregon. Medford 3-3252.

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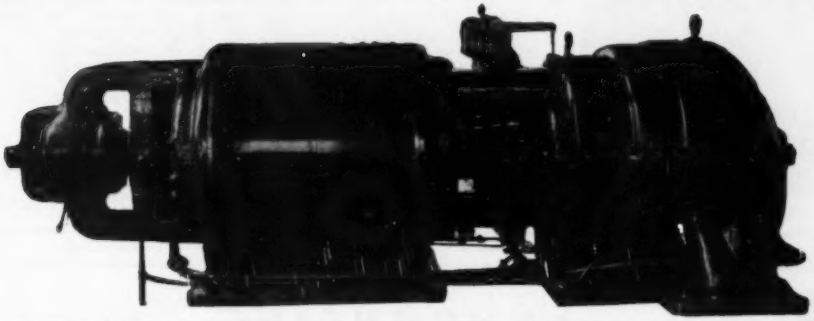

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